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THE DRIFFIELD MUSEUM.

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A
Descriptive Catalogue
OF THE
SPECIMENS IN THE
MORTIMER MUSEUM
OF
Archæology and Geology
AT DRIFFIELD.

(WITH ILLUSTRATIONS.)

BY
THOMAS SHEPPARD, F.G.S.

ONE SHILLING NET.

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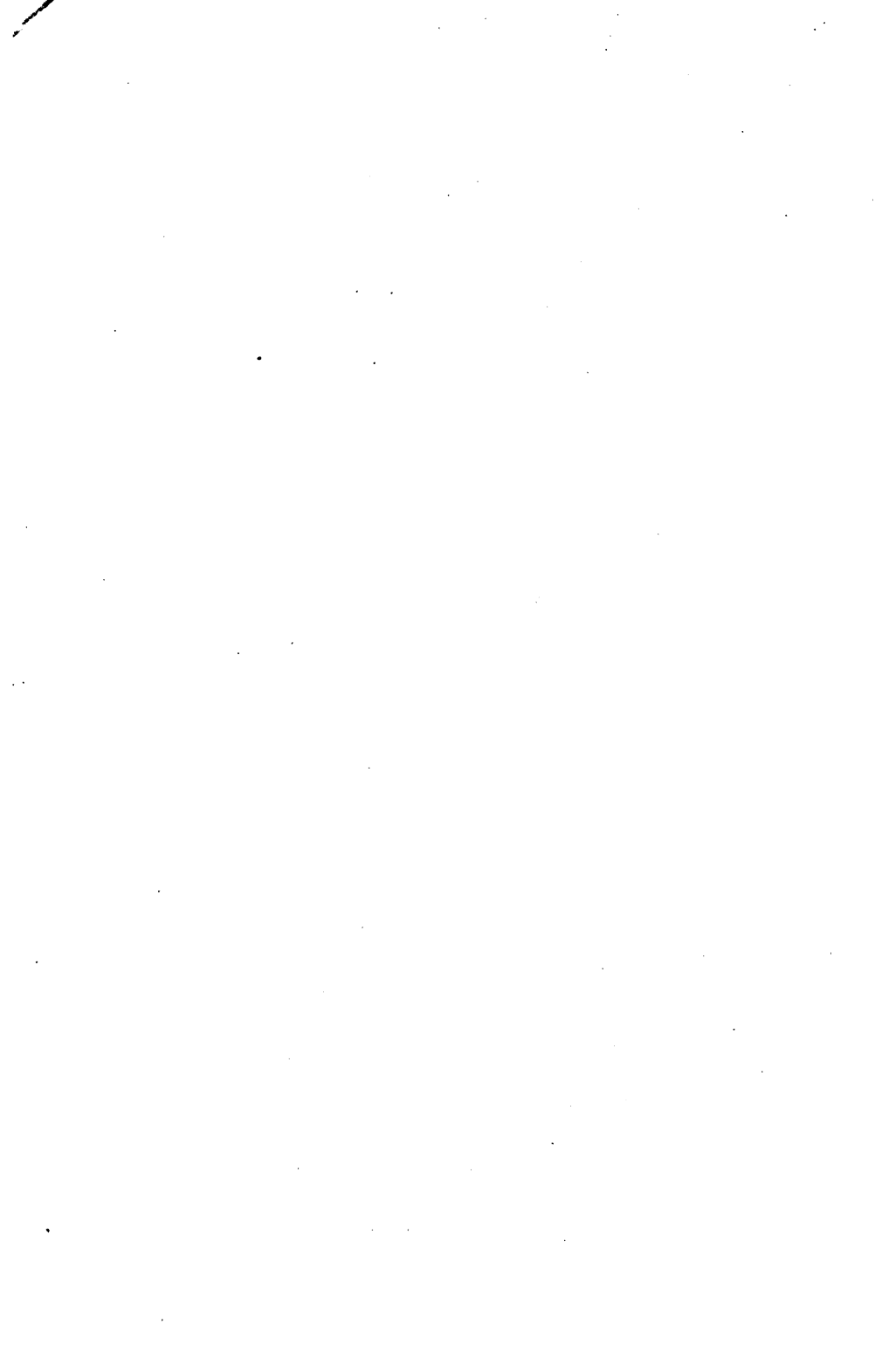
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PREFACE.

THE notes contained in the following pages have been put together in the hope that they may be of value to students of local archæology and geology, not only by enumerating the various specimens gathered together in Mr. Mortimer's Museum, but by drawing particular attention to the various types of objects met with, and giving brief descriptions and drawings thereof.

Unfortunately the chalk and other fossils in the cases on the ground floor still require thoroughly examining by specialists before they can be completely labelled and classified. Mr. Mortimer has had neither time nor opportunity for this work, and has wisely taken particular care to label the specimens as to the precise locality from which they were obtained, leaving the actual naming of the specimens for others. By getting the various specimens together whilst the opportunity lasted, Mr. Mortimer has given all geologists reason to be grateful. The chalk quarries are not being worked at the present time to anything like the extent they were formerly; consequently there is not now the opportunity of collecting. The reason just given will account for the geological section of the Catalogue not being quite so full and detailed as would otherwise have been the case.

In the archæological section, of course, the most important and valuable part of the collections is to be found. Particulars as to how these specimens were amassed together appear in Mr. Mortimer's notes on the History of the Museum on pages 9-16. The specimens in the Archæological section were obtained by Mr. J. R. Mortimer and his brother, the late Mr. R. Mortimer, many years ago. Being among the first in the field, and situated in a convenient centre on the Yorkshire Wolds (then one of the most prolific collecting grounds for pre-historic relics in England) thousands of flint and stone implements were secured. The farm labourers for miles around were induced to spend their spare time walking over the ploughed fields in search of implements, and prizes were

given to those who obtained the greatest quantity. At that time it was not an uncommon occurrence for a basketful to be brought to Mr. Mortimer! Now, however, the Wolds have been so carefully traversed over and over again, that it is no easy matter to get hold of half a dozen good specimens.

But of more importance than these relics picked from the ground are the numerous skeletons, together with the vases, and objects of stone, bone, bronze, jet, or other material found in association therewith, which have been dug from the "barrows" or burial mounds. The opening of these mounds has been the chief hobby of Mr. Mortimer for about forty years, during which time he has examined over three hundred. There are now very few left unopened, hence there is a peculiar value and interest attached to the relics from the barrows, which are arranged in the cases on the upper floor.

The district particularly examined by Mr. Mortimer in this direction is south of a line drawn from Bridlington westwards, and in obtaining the specimens and transferring them to his museum he has rendered a great service to students of archæology, as many of the grave-mounds have already disappeared before the plough, and the day is not far distant when very little will be visible in place of the once scores of mounds of various sizes which were dotted over the Wolds.

Detailed accounts of the various barrow openings have been kept by Mr. Mortimer, and are in manuscript form, almost ready for printing. It is to be hoped that the results of his labours will ere long be before the public in the form of a substantial book. In connection with this, careful drawings of all the more important objects in the museum (upwards of a thousand) have been made by Miss Mortimer, the objects drawn being marked with a small triangular piece of blue paper.

The burials do not all take the same form. In some instances the body is preserved in a rough stone coffin, or cist, formed by four slabs of stone surmounted by a large lid or covering of the same material. There is an excellent example of one of these cists in the grounds near the museum gate. In other instances the bodies have been protected by a covering of some light perishable material, all traces of which are now gone, or have not been protected at all, but have been simply laid in a hole in the ground and covered up with earth. In the forms of burial just described, stone, bone, or bronze implements and ornaments of jet, &c., are often buried with the body, and also earthenware vessels.

These can usually be classified into "food-vases" (see fig. 10, page 36), "drinking-cups" (see fig. 11, page 37), and "incense-cups" (see figs. 4 and 5, page 34).

It often happens, however, that the bodies have been cremated and the remains placed in Cinery urns (see fig. 3, page 33). These are usually much larger than any of the three kinds of vessels just referred to, and sometimes are of enormous size. Amongst the material in these Cinery urns the burnt remains of ornaments or weapons are not infrequently found. In other instances the cremated remains are simply placed in hollows in the ground.

Some of the barrows contain more than one burial. There is, however, usually the primary burial at or near the centre; the others, obviously subsequent or "secondary" burials, are placed between the centre and the outer part of the mound. In some instances burials of Anglo-Saxon date have been found within a mound originally erected over a Briton.

The method Mr. Mortimer has adopted in arranging his collections has been to place the contents of each group of barrows in a case by themselves, and as far as possible to keep the contents of each barrow together. In every instance, however, the number of the barrow from which an object has been obtained is indicated.

By carefully examining the objects from the various groups of barrows it would appear that each group represents the burial place of a particular family or section of our pre-historic population; as in many instances certain peculiarities are noticeable amongst the specimens from the barrows in one group which rarely occur in barrows situated in other groups. Thus, in one group of barrows quite a large number of buttons and other objects of jet were met with; such objects only rarely occurring in other parts of the Wolds. One group is remarkable for the large number of antlers of the red deer found therein; another for the great proportion of bronze objects; another for the large number of food-vases, drinking-cups, or incense-cups, and so on.

It is interesting to observe that many of the implements, particularly the bronze socketed axes, &c., that have been picked up from the land at various times, are never found in the barrows, whilst nearly every type of implement hitherto recorded from the barrows has also been found separately on the Wolds.

In order to give a better idea of the types of vases, implements, &c., which occur in the museum, figures of most

of them are given in the following pages. We are indebted to Sir John Evans, to the Society of Antiquaries, and to the Norfolk and Norwich Naturalists' Society for permission to use some of the blocks.

The writer is also indebted to Mr. J. R. Mortimer for his constant assistance during the preparation of these notes.

T. S.

NOTES ON THE HISTORY OF THE MUSEUM.

IT was the great London Exhibition of 1851 that first decided my taste for scientific enquiry. Afterwards, Mr. Edward Tindall's geological and archæological collections, at Bridlington, fired me with a strong desire to make a similar collection. A curious chalk cast was the first specimen I obtained, whilst a small ammonite, which I bought from Mr. Tindall, was the first of its kind I possessed.

My brother, the late Robert Mortimer, of Fimber, had a like love for collecting.

For the first ten or twelve years the late Edward Tindall, of Bridlington, and the late George Pycock, of Malton, were almost our only rivals; yet we accumulated specimens but slowly. We had, however, during this period, trained many of the farm servants in the Fimber neighbourhood to distinguish and keep for us any geological and archæological specimens they could find. The small collection we then made mainly consisted of chalk fossils and a very few stone and flint tools. These we exhibited in cases, in my offices at Fimber. Small though this display was, it seemed to stimulate others to indulge in the same hobby, and soon our neighbourhood was more or less periodically visited by the thirteen competitors hereafter named and their agents, during a period of about 35 years, ranging from 1861 to 1896. None, however, of these enthusiasts, except Mr. Tindall and Mr. Chadwick, collected geological specimens, though all of them were active competitors for stone, flint, and bronze weapons. They constantly visited the district, and, not infrequently, bought from the very field labourers whom we had trained to distinguish these specimens, by overbidding us, and so running up the prices.

The combined energies of these gentlemen would, I believe, obtain from the same area quite three times the large number of stone, flint and bronze tools, and weapons, that have been collected by my brother and myself, now

exhibited in the Museum at Driffield. If this be the case, it should be asked : What has become of so great a number ? In attempting to answer the question, I will briefly refer to each collector's labours.

(1.) The late Edward Tindall, of Bridlington, not only commenced to collect more than 50 years ago, but he held almost unrivalled access to a field rich from both a geological and archæological point of view. Besides, he was personally a diligent collector, so much so as to call forth, at times, uncomplimentary remarks from superficial observers. On one occasion, whilst gathering specimens in a field near the sea, at Bridlington, two ladies were passing, and he overheard one remark to the other, "Look here, that poor old (meaning 'demented') man we saw last year is here again, picking up stones and throwing them down again." These "stones," of course, were the rejected specimens. I myself, when similarly engaged, have been accused of mushroom gathering.

Mr. Tindall obtained a great number of specimens, but he was always ready to dispose of them whenever any collector, no matter from whence, wished to buy. Nevertheless, he generally had on hand a considerable number of both geological and archæological specimens, and amongst them were often some choice ones. After his death, in 1877, at the age of 63, the collection he had then on hand was sold. Part of this was obtained by Mr. Robert Gatenby, of Bridlington, but what became of the remainder I do not know.

(2.) The late Mr. George Pycock, of Malton, made a collection, which he sold, many years ago, to the late Dr. Rooke, of Scarborough, and it is now in the private museum of Dr. Rooke's son at Scarbro'.

(3.) The Rev. Canon Greenwell, of Durham, amassed a large number of valuable specimens (independently of those he obtained from his excavations of the barrows), the greater number of which have been gathered from the surface of the wold hills and the immediate neighbourhood. These the Canon sold in July, 1896, to Dr. Sturge, of Nice, and they are now in the south of France, to the great loss of East Yorkshire.

(4.) The late Frederick Porter, of Yedingham, had gathered together several hundreds of stone and flint tools,

among which were some good specimens. He disposed of a portion of them, I believe, to the Rev. Canon Greenwell, but I do not remember what became of the others, when he removed from Yedingham to Jersey in 1868.

(5.) The late Mr. Charles Monkman, of Malton, was, for a considerable time, an energetic collector. Some of his best specimens fell into the hands of the Rev. Canon Greenwell, and a few were obtained for the York Museum. After Mr. Monkman's death, on April 13th, 1875, the remainder were quickly disposed of by his wife; but I am ignorant of their present whereabouts.

(6.) The late Charley Hartley, of Malton, obtained many specimens of both flint and stone implements from the same collecting ground. These, about the year 1875, he sold to the late Mr. T. W. U. Robinson, of Houghton-le-Spring, near Durham, who had a large collection, gathered from all parts. Mr. Hartley afterwards made a second collection, which, after his death, on September 7th, 1883, was disposed of, and the best of these specimens were also bought by Mr. Robinson.

(7.) The late Rev. James Robertson, Curate-in-charge of Barton-le-Street, also for several years periodically visited the part of the Wolds from which I obtained my collection, and he procured a large number of pre-historic relics. Most of these, I have been told, he disposed of, in 1876, to Mr. John Evans (now Sir John Evans), Nash Mills, Hemel Hempstead, and in 1877, my brother, the late Robert Mortimer, purchased the remaining portion of Mr. Robertson's collection for £25.

(8.) Mr. George Edson, late of Malton, was a very careful and industrious collector of all kinds of specimens of archæological interest, both as an agent to Canon Greenwell, and on his own account. When leaving Malton, he sold his collection by auction on May 8th, 1891, and many choice specimens were disposed of to various purchasers, a few going to the York and Malton Museums.

(9.) The late Thomas Allerson, of Norton, near Malton, was, like Mr. Edson, constantly being brought into contact with the farm servants and other field labourers, when on his business journeys in this neighbourhood, most of whom had then become well skilled in distinguishing the value of

different specimens. They were also quite ready to take advantage of the extra prices to be obtained from the rival purchasers then in the market. So keen was this competition at one time, that, to retain our hold of the market, we distributed handbills, offering rewards, consisting of money and a free pass to the Leeds Exhibition in 1866, to those who would supply us with the greatest number of articles of various kinds. In 1873 Mr. Allerson had obtained a considerable number of pre-historic relics, which he then wished to sell, and he offered them to me. These I purchased from him, and they are now in the Museum at Driffild.

(10.) My friend, Mr. Thomas Boynton, of Bridlington Quay, has a large and choice collection of stone, flint, and bronze weapons of local origin, as well as a few from the south of England and other districts. He also possesses many very beautiful flint and chert arrow-heads, and various instruments from America and other countries. He is frequently adding to his very fine collection, which should certainly be secured so as to remain in East Yorkshire.

(11.) The late Rev. Thomas J. Monson, of Kirby Underdale, was merely one of Canon Greenwell's collecting friends in this neighbourhood, and after he had purchased a few specimens picked up by the farm servants, he forwarded them to the Canon, without having any further interest in the matter, or knowing more about them. The probability is that the district was not very much impoverished by his labours.

(12.) Mr. Robert Gatenby, of Bridlington, has obtained several hundreds of flint, stone, and bronze specimens, a few of which are very fine ones. He is still adding to the number.

(13.) Mr. Samuel Chadwick, late of Malton, who emigrated to New Zealand in 1895, was a very energetic collector of both fossils and implements. His business occupation brought him frequently among the farm labourers and quarrymen in the rural districts. This gave him exceptional opportunities for obtaining a considerable quantity of specimens, and for a considerable time he was my most active rival. That Mr. Chadwick made good use of these facilities, the contents of the Malton Museum give ample proof. This fine and large collection, gathered almost entirely from the neighbourhood, is also sufficient evidence

of his energy and knowledge as a diligent collector. Besides those placed in the Malton Museum, he supplied many specimens to the York Museum, and a few to other places.

There were also a few minor collectors, whose united labours have assisted to impoverish this neighbourhood.

For the last few years, almost the only local collectors I have had to compete with are Mr. Thomas Boynton, Bridlington Quay; Mr. Robert Gatenby, Old Bridlington; and, I may add, Sir Tatton Sykes, Bart., of Sledmere.

COLLECTIONS FROM THE BARROWS.

Hitherto I have only referred to the collections of specimens which have been obtained from the surface of the land, or otherwise accidentally found.

In addition to these, four valuable collections of ancient British and Anglo-Saxon relics have been obtained by excavating the barrows of this district.

(1.) The late Lord Londesborough explored a great number of barrows in this neighbourhood, during a period of ten years, ranging from 1842 to 1852, and the principal of the articles he then discovered were placed in his museum at Grimston. After his lordship's death, when the house and estate at Grimston were sold (about 1872), the contents of the museum were dispersed. Afterwards (in 1886) a portion of the relics were sold by auction by Messrs. Christie, Manson, and Wood, at their rooms, King Street, St. James', London. Of the present whereabouts of this large collection (excepting a small portion, including some rare specimens from a barrow at Kellythorpe, near Driffield, which at the above sale found its way to the British Museum) I know nothing. I fear, however, that the whole of it is lost to East Yorkshire.

(2.) The late James Silbourn, of Pocklington, during the years 1851-2, opened several of the barrows in the neighbourhood of Huggate and Warter. Since then I have re-opened nearly the whole of these particular barrows, as I could not distinguish, before excavating, which of them had been opened by Mr. Silbourn. I found that he had placed a strip of lead, on which his name was stamped, in several of the barrows he had opened. In the spring of 1852, Mr. Silbourn, during an exploration in stormy weather, took cold, which brought on inflammation, and so caused his death. After this regrettable

circumstance, the pottery and many other relics he had obtained from the barrows were sold by his relatives, and, like the previously named collection, their fate is unknown to me, excepting—as in the previous instance—a very small portion, which is now in the British Museum.

(3.) The Rev. Canon Greenwell, of Durham, during a period of thirty years (1864-1894), excavated upwards of 300 barrows on the chalk wolds, immediately adjoining my field of research. An account of the greater number of these he published in his work on "British Barrows" (1877). The illustrations and descriptions in this very valuable book clearly indicate what a large treasure of relics was then obtained. That all these have been placed in the British Museum, and are now entirely lost to East Yorkshire—their legitimate home—is, I think, much to be regretted.

(4.) And lastly, I have myself, between 1864 and the present time, explored nearly the whole of a series of the Wold barrows on an area of about eighty square miles. That I have safely preserved the relics discovered during these researches, the contents of the museum at Driffeld will testify. I also possess about 1000 drawings, which my daughter has made for me, of all the objects of interest which I have discovered; and I have in addition a full type-written description of the results of all my excavations; and I may say that the procuring and arranging of this collection has been one of the greatest pleasures of my life. That this collection should belong to the district, and remain in it, has been, and is, my great and constant desire. Unfortunately, however, I cannot afford to offer it as a free gift; but to prove my great anxiety for its remaining in the neighbourhood, I have offered it to the East Riding County Council at half its value. Probably such a purchase by a County Council might seem to be a little in advance of the times; nevertheless, a time will come when such a thing will be done, and if the East Riding County Council accept this offer, they will never regret being amongst the pioneers in such an advanced and enlightened step.

From the memoranda I have just given it is sad to observe that of all the collectors I have referred to, including myself, only six are now living. It is also to be lamented that of the fourteen collections, only four remain in the neighbourhood, these being in the Driffeld and Malton

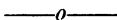
museums respectively, and those belonging to Mr. Thomas Boynton and Mr. Robert Gatenby. Of the other ten, nine are mainly absorbed by public and private museums in distant parts of the country, or have otherwise disappeared; whilst a great portion of one (the most important of the ten) has been removed so far as the south of France. It is still more to be regretted that three of the most valuable collections of the four named explorers of the barrows (*viz.*, those of the late Lord Londesborough, the Rev. Canon Greenwell, and the late James Silbourn) have been dispersed, and are lost to their native East Yorkshire. Such, unfortunately, must be the fate of all private collections if not permanently fixed during the life of their original owner, as it far too frequently happens that that which one generation gathers the next generation scatters.

I have said "more to be regretted" because it is possible that some future collector might obtain a small collection of specimens from the surface of the land, but to make another collection from the barrows of this district would be quite an impossibility, as they are practically exhausted. From these facts it is evident that the neighbourhood has been deprived of a great number of its precious relics, which were a valuable legacy left by our ancient forefathers, and by right should have remained and belonged to the present and all future occupants of the district. These valuable remains are almost the only reliable records of the customs and mode of living of our remote ancestors; they are the fossil history of the district, and they must always be of the greatest interest to the neighbourhood in which they have been found; it is, therefore, our bounden duty to provide, as far as possible, for their safe keeping in the district. Nevertheless, I have shewn that, unfortunately, during the last thirty-five years this district has been immensely impoverished of its archæological treasures, and it is much to be regretted that even at the present time the tendency is to favour the removal to distant collections any relics which are found in this neighbourhood, rather than assist to retain them in the district to which they belong by inheritance; such instances have recently come under my notice. At present only three of all the eighteen collections I have referred to—*viz.*, fourteen, consisting of specimens obtained from the surface of the land, and four from the excavations of the barrows, remain in East Yorkshire. Surely the East Riding possesses some governing body that, before it is too late, will see the wisdom of permanently possessing these, and handing them down to

future governing bodies as a source of education and a treasure of permanent value to the district. When this is accomplished, and it is known that this collection belongs for ever to the district, it will be a centre of donations of relics found in and belonging to the neighbourhood (rather than the specimens be sent to distant collections, where they can only be of minor value), and in time it ought to, and will, become a large and very valuable possession.

J. R. MORTIMER.

CATALOGUE OF THE COLLECTIONS IN THE MORTIMER MUSEUM.



The building stands on its own ground, on the south side of Lockwood Street, Driffield, about three minutes' walk from Driffield station. It is a little distance

The Building. from the road, and there is sufficient room to enable the building to be considerably enlarged, should this be necessary at any time (see frontispiece).

Over the door is the word "Museum," and at the top is a stone slab with the date 1878—in which year the building was erected. The Museum is rectangular, is 54 feet long and 31 feet wide, independently of the workshops behind. It is well lighted, both from the sides and roof.

Between the outer gate and the entrance to the Museum, in the north-east corner, is a large stone cist, formed of very roughly hewn slabs of Oolitic sandstone, probably obtained from Filey Brigg, the lid or covering measuring 6 feet by 4 feet, and is 7 inches in thickness. This contained an interment of British age, and was taken from a tumulus at Driffield.

At the south end of the building are two large workrooms, one on the ground floor and one on the first floor. There is access to them, both from the outside and the Museum. In the lower one are many cases and cabinets of geological and archæological specimens—Mr. Mortimer's first collections. Arranged around the walls of the workroom upstairs are about 70 British and other skulls, which will eventually be placed in the Museum, and a great number of limb-bones and other human remains, and several deposits of cremated bodies. These are wrapped in separate parcels and carefully labelled as to the barrows from which they were obtained, &c.

On entering the building by the main door there is the **Entrance Hall**, around which various Mediæval antiquities and relics of modern savages are arranged. To the right is the staircase leading to the gallery, whilst in front is the entrance to the geological section of the Museum.

On the left wall of the entrance-hall is a collection of various objects of comparatively recent date; including an iron man-trap, a spring-gun, several horse-shoes of various dates, stirrups, "fetter - locks," &c. Also some "hand - flails" or "hand-thrashers."

On the south wall, along the side of the staircase, is a miscellaneous series of Figiian and other implements and ornaments of modern savages, which are useful for comparison with the relics of the early inhabitants of this country which are contained in the Museum. This includes bows, arrows, spears, axes, clubs, and necklaces and other ornaments.

On the floor are various types of querns, &c., mostly from the immediate neighbourhood, and in the upper part of the building are two objects, which are yearly becoming of more and more interest, viz., old bicycles, with wooden wheels hooped with iron, locally known as "bone-shakers."

The specimens are arranged in glass-covered cases around the walls and on the floor. There is a gallery around the Museum at an elevation of 14 feet from the floor, with wall and table-cases containing the antiquarian and archæological exhibits; the geological specimens being arranged in wall-cases and six large table-cases on the ground floor.

ARCHÆOLOGICAL SECTION.

On the wall at the top of the stairs is a chart containing large plans of fourteen cruciform embankments of earth, eleven of which are near Driffeld. Mr. **Plan of Earthworks.** Mortimer considers that these earthworks are early Christian "Moot hills," and are probably of Anglo-Saxon age.

The first object met with on reaching the top of the stairs is an old quern, or hand-mill. There are **Hand-Mill.** both upper and lower stones, but they are not a "pair," the upper stone being larger than the lower.

Close by is a small cabinet of flint implements of various kinds, all from the neighbourhood, which **Danish Flint Implements.** require arranging. On the top of the cabinet is a glass case containing a fine series of flint axes, knives, and other implements from Denmark.

Also on the north wall is a wall-case and table-case containing various types of North American implements and ornaments, pottery, pipes, &c. These are made of chert, stone, bone, horn, and other materials. **North American Antiquities.** The specimens were got together by Mr. Thos. Sanderson, formerly a collector and labourer in the employ of Mr. Mortimer, who went to America some years ago. Some of the stone axes greatly resemble the English types of axes.

On the top of this case are two North-American skulls, a Zulu skull, and the skull of a local murderer. These are useful for comparison with the skulls of ancient date exhibited in the other cases. **Modern Skulls.**

Under this desk are representations of the four different forms of burial met with in the East Riding, two of which show the skeletons entire; the other two the cremated remains only. In each instance the bones, urns, implements, &c., are represented precisely in the positions in which they were found. **Types of Early Burials.**

The upper case contains an Anglo-Saxon burial, which was obtained from Garton Slack in 1876. The skeleton is in the somewhat crouched position, laid on its chest, with both hands bent under the pelvis. **Anglo-Saxon Burial.** Near the feet is a plain food vase, of coarse earthenware, and in the bend of the legs are a few rib bones of some animal, probably the ox, which are doubtless the remains of food which had been placed there. There had apparently been a girdle round the waist, the iron buckle of

which remains, together with a knife of the same material, which was no doubt stuck in the girdle.

The British skeleton, also dug up at Garton Slack in 1866, is that of a female, and is much more doubled and contracted than the Anglo-Saxon skeleton. It is on its right side, with the right arm underneath and brought to the thigh-bone, the left arm being doubled under, with the hand near the right elbow. In front of the mouth is a rude flint-scraper, and at the back of the head is a large bone pin for fastening the hair. The phalanges of the left foot were missing when the skeleton was discovered, and two worked flints were found to be substituted.

On the floor is a large Cinery urn, containing burnt bones —an example of a cremated burial. It was taken from a tumulus (No. C. 92, Group 15), on Blanche Wold, and no other relic of any kind was discovered with it.

Adjacent is another form of cremated interment from Barrow 82, Group 11 (Garton Slack). The burnt bones in this instance were not contained in an urn or other receptacle, but were placed in a hollow, 12 to 14 inches across, in the ground. Near to it was another hollow a little less, containing a quantity of small broken bones and other remains of food, and close by stood a small food vase.

From the last two forms of burial it would appear that cremation was in vogue so long ago as the times of the Ancient Britons.

Proceeding to the east wall: this is entirely occupied by a large case, about 9 feet high, and is numbered 7 in the centre. The case is divided into 16 partitions, or minor cases, by glass doors. Beginning at the north end, these are numbered from 1 to 16.

CASE NO. 1, and the lower part of CASE NO. 2, contains an assortment of old and modern glass-ware, pottery, China, necklaces, iron buckles, knives, keys, pipes, &c., of various dates; chalk moulds for casting pewter vessels, wooden tankards, &c. Special attention is drawn to a large lead cannon-ball, found embedded in the chalk sub-soil at Towthorpe.

In CASES 2, 3, and part of CASE 4, is a very fine collection of bone, iron, bronze, &c., implements and ornaments, and also some pottery of Anglo-Saxon age. These have all been obtained from Anglo-Saxon interments near Driffield.

Amongst the *bone* objects are portions of an armlet, a pierced knob, or ball; and a few well-made combs, one of which has a highly ornamented case of the same material.

The *iron* objects include hoops, shears, spears, shield-bosses, bridle-bits, knives, a sword slightly over three feet long, and a massive cooking ladle.

The articles of *bronze* are, rings, circular brooches, buckles, girdle-clasps, some fine cruciform fibulæ, hair and

other pins, two cylindrical boxes (which contained needles and traces of thread); a set of rings, chain, and ornamentation belonging to a satchel, the texture of which is preserved by oxidation; and several other objects of a less definite character.

There are two *gold* pendants or bullæ of very fine workmanship; and some plain rings, ear-rings, and a buckle, of *silver*.

Amongst the personal ornaments are six fine necklaces, made of beads of pot, glass, crystal, amber, and shells respectively.

On the top shelf are five vases of different sizes and shapes; one, a cooking-pot from Kelleythorpe, is a very large one. The remaining four are food vases, and are all from Driffield.

The various Anglo-Saxon objects described above are arranged in groups as they were found; each burial being kept distinct.

In another part of CASE 4 are some rings, iron spears and arrow heads, and other objects of uncertain date, which have been unearthed in and near Driffield.

On the upper shelves of CASES 3, 4, 5, 6, 7, and 8, is a collection of about sixty Anglo-Saxon crania, an examination of which should give a fair idea of the type of an Anglo-Saxon skull. It will be noticed that in some of the skulls the teeth are very prominent. In all the crania the teeth are in very good condition,

though not quite so good as the teeth of the British skulls, to be described later.

The lower parts of CASES 5, 6, and 7, contain numerous examples of Anglo-Saxon and Mediæval pottery, mostly in fragments, spindle-whorls of chalk, portions of stone, iron and bronze articles, lead weights, animal bones, bone tools, &c., the majority of which were found in the "excavated crosses" on the moot hills. Several such moot hills occur in the vicinity.

In CASE 7 is the half of a very large vase found in one of two small mounds near the Elmswell Springs. There is also some *Roman* pottery from Driffeld.

Mention should be made of a small spherical object in terra-cotta in CASE 5. This was found on the bank of the stream at Driffeld in 1895, and is curiously ornamented after the pattern so characteristic of the ornamentation upon Anglo-Saxon vases; its former use is a matter of doubt, but Mr. Mortimer thinks it might have been an "amulet," "charm," or "adder-stone."

CASE 8 contains two fairly perfect vases of Anglo-Saxon date, and remains of six others. These were found while levelling the Recreation Ground at Driffeld in 1893, along with a deposit of flints of British age, and some burnt bones. The vases were whole when found, but were ruthlessly broken by the workmen. This case also contains other miscellaneous objects of iron, bronze, &c., found at the same time, and a cheese-shaped object of chalk, nine inches in diameter, with a hole through the centre, found at the north end of Driffeld.

CASE 8 also contains a small Roman vase from Swine Ridge chalk pit at Millington, which is interesting as showing that a hole in it has been filled up with pewter.

In the lower part of this case also are some potsherds, pieces of tiles, wall plaster or "stucco," showing paint of two or more colours, fragments of thin glass, and a large number of small cubes of chalk and red tile—the remains of a tessellated pavement. The objects were obtained in 1899, whilst excavating the foundations of an accidentally

discovered hypocaust of a Roman Villa at Langton, near Malton.

The lower portions of CASES 9 and 10 contain broken Romano-British pottery, bones of various animals, usually broken, taken from Tumulus No. C. 64; **Animal remains from Tumuli, &c.** several large egg-shaped pieces of chalk, each pierced with a circular hole at one end, and a quantity of pottery in fragments, both these latter lots being found on the site of the Driffield Cattle Market.

A box of bones and also several varieties of Roman and Romano-British earthenware, together with bone pins, and other objects, from Blealand's Nook, a little east of Fimber Station. **Romano-British Cemetery.** It is thought that a Romano-British Cemetery existed at this place as nearly twenty bodies were disinterred.

The upper part of CASE 10 is occupied by some iron spears, knives, daggers, a sword-knife, &c., of early mediæval, and some possibly of Anglo-Saxon date. These were dredged from the River Hull between Frodingham and Hull Bridge (Beverley), during the years 1876-1885. There are also some drawings of similar specimens which are in the collections of Dr. Stephenson, of Beverley, and Mr. Thomas Boynton, of Bridlington. **Mediæval Spears, Daggers, &c.**

In CASE 11 are a skull and other human bones, a bronze dish, and the lower half of an earthenware urn from the "New Cut" between Rotsea and Leven, made in 1883. **Relics from the "New Cut."**

A large collection of coins, tokens, &c., some of local interest (not arranged).

In the lower part of Case 11 is a Roman "flue-tile," and a small model of an underground structure which was found one mile south of Langtoft in 1875 (see J. R. Mortimer, "An Underground Structure near Driffield, Yorkshire," *Journ. Anthropol. Institute*, Feb. 1878), together with a piece of Roman pottery, charred bones, &c. It is apparently a heating apparatus of some description, possibly a Romano-British hypocaust. **Roman Objects.**

At the top of CASE 12 is a large bronze bowl from **Bronze Bowl**. Brough, thought to be of Roman date.

CASES 12, 13, and 14. A large collection of Roman remains from York and neighbourhood. This includes:—

- Roman Objects from York.**
- 4 large Cinery urns.
 - 1 water jug.
 - 2 small vases.
 - 24 small vases of various shapes and sizes. Several fragments of Samian-ware (ornamented).
 - 17 vessels of Samian and "bastard" Samian-ware.
 - 6 earthenware lamps.
 - Several portions of vases (grey ware).
 - 22 small glass vessels (? lacremataries) of various sorts and sizes, some beautifully ornamented.
 - 24 bone pins.
 - 3 bone needles.
 - 4 necklaces (3 of polished agate beads, and one of pot beads).
 - Bronze keys.
 - A stylus.
 - Lead and bronze figurines.
 - Iron stirrup, and other objects of metal.

Case 12 also contains some small mediæval (?) images in plaster.

CASES 15 and 16. Part of a collection of Roman, Pre-Roman, and other objects from the vicinity of the Rhine. It is said these specimens were formerly in a museum at Metz, and were dispersed during the Franco-German war. Mr. Mortimer purchased them from a dealer in Hull, in 1874.

The Roman objects include:—

- Of Earthen-ware.**
- 1 large bowl.
 - 1 vase (black).
 - 17 jugs with handles, some grey and some terra-cotta; one of these is doubtfully Roman.
 - 12 vases, &c., without handles, of grey and terra-cotta ware.
 - 1 large grey bowl.
 - 1 black basin.
 - 2 shallow dishes.
 - 1 Samian-ware dish.
 - 2 other dishes.

Portions of Samian-ware.

- 3 lamps (one white, one red, and one black).
- 2 earthenware figurines (one representing a rabbit and the other a boar).

Necklaces.

- 7 necklaces :—
- 2 of agate, very similar to those from York.
- 1 small necklace of quartz pebbles.
- 2 of small garnets embedded in vitreous paste.
- 1 of beads of variously coloured pot, glass, &c.
- 1 of large beads of pot.

Glass Objects.

- 11 small glass bottles (tear bottles).
- 1 large bottle.
- 1 small dish.

These cases also contain numerous objects of bronze, most of them are undoubtedly of Roman date, but some are earlier and correspond with the early British bronze age.

Bronze Objects.

The Roman objects of bronze include :—

- 2 large dishes.
- 2 small dishes.
- 2 small vases (one perforated).
- 1 cooking pot, with handle.
- Roman.** 1 egg-shaped vase, with bow handle for hanging up.
- 1 plaque (use doubtful).
- 1 jug, with handle.
- 1 massive thumb-ring, with head as ornament.
- 4 figurines [a giraffe (?), a cat (?), a deer (?), and a hare (?)].
- 1 bell.
- 1 button.
- 1 mirror, with handle wanting.
- 1 other object, similar in shape, probably also a mirror.
- 1 handle to a vase.
- 1 hook.
- 22 fibulæ of various sizes, more or less in perfect condition.
- 4 keys.
- 2 buckles.
- 1 stylus.
- Clasps.
- Portions of a double-linked chain.
- Portions of ornaments, vessels, and other objects of a miscellaneous character.

Iron Keys. 9 iron keys.

The bronze objects of Pre-Roman date are :—

- 2 saws.
- Pre-** 3 axes.
- Roman.** 2 daggers.
- 7 armlets.
- 4 rings.
- 1 chisel
- 1 torque, and fragments of others.

Case 16 also contains a Grecian vase, an Anglo-Saxon (?) vase, and three bronze images of doubtful date, all from the Metz Museum.

On the top of the cases on the east wall are two "grey-beard" jugs, and five querns, or hand-mills.

The case just described is the last one on the east wall of the Gallery, and objects of modern, Mediæval, Anglo-Saxon, and Roman date have been enumerated. The cases on the south and west walls contain a variety of objects, practically all of which have been dug from the Yorkshire barrows. They contain the relics found in over 300 of these burial mounds, which Mr. Mortimer has opened during the last thirty-six years. With the exception of the large vases, which are occasionally arranged on the top shelf, the contents of each barrow are kept together, and the number of the barrow from which they have been taken is shewn. To further facilitate reference, as well as for other reasons, the various barrows on the Wolds have been grouped according to their geographical position. For instance, Group 1 contains 20 barrows near Towthorpe. The various barrows that have been opened are numbered in the order in which Mr. Mortimer examined them. The relics from the groups of barrows in the cases are separated from each other by a broad blue line, and numbered. The groups on the ordnance **Maps.** 6-inch maps (which are mounted and hung in the south-east corner of the Gallery) are similarly indicated by a blue line and numbered. Consequently an object in Group 7 — for example, numbered as from Barrow No. 104, can be instantly located on referring to the map. In this manner any particular barrow can be readily found on the ordnance sheets. As a further aid, a small

plan of each group represented is placed in the case together with the objects.

The case on the south wall, which is numbered 8 in the centre, is in 9 partitions, which are numbered from 17 to 25.

CASE NO. 17 contains the contents of the barrows situated in **Group 1**—the *Towthorpe* Group. This includes twenty mounds, nineteen of which have been opened, and the various relics obtained therefrom are here exhibited.

In this case are :—

- 3 food vases (one of which has a knob or rudimentary handle).
- Objects from** 2 drinking cups.
- Towthorpe** 2 fine bronze daggers.
- Barrows.** 1 bone pin.
- 1 bone ornament.
- 1 stone hammer, or "war mallet." This, together with a flint knife and one of the bronze daggers just referred to, occurred in Barrow No. C. 39, with an interment in the unusual extended position.
- 6 very finely executed diamond-shaped spear heads, from $1\frac{3}{4}$ to $2\frac{1}{2}$ inches in length. These are all from Barrow No. 18 (figs. 8 and 9).

Also some stone "pounders," numerous flint objects, remains of earthenware vases, &c.

The lower portion of CASE No. 18 contains the objects from ten barrows situated in **Group 2**, near **Wharram Percy Group**. *Wharram Percy*, all of which have been opened by Mr. Mortimer.

There are :—

- 3 Cinery urns.
- Objects.** 3 food vases.
- 1 drinking cup.
- 2 very fine jet studs from Barrow No. 70.
- Bones of rats, mice, &c., and a large collection of land-shells (helices, &c.).

The upper part of CASE 18, as well as the whole of CASES 19 and 20, contain the objects from the barrows in **Group 3**, situated at *Aldro*. There are 36 barrows in this group, 34 of which have been opened. It is rather remarkable that only one Cinery urn is exhibited from this large group.

- Objects from Aldro Barrows.**
- 1 Cinery urn.
 - 9 food vases.
 - 4 drinking cups.
 - 5 small incense cups.
 - 1 bronze bodkin, or pricker, from Barrow No. 113.
 - Remains of a very fine jewelled bronze sword, or dagger, and probably other articles of the same material, which have been burnt and almost destroyed during the time the body in Barrow No. 108 was cremated.
 - 1 hollow bone object, 7 inches in length, widened at each end, apparently a musical instrument, from Barrow No. 52.
 - 6 bone pins, found together in Barrow No. 113, and remains of other bone pins.
 - Several hand picks, made from the antlers of the red deer.
 - Hammer (pierced), made from the thick end of a red deer antler.



FIG. 1.—Jet Link, or "Slider."

Several flint objects. Particular mention should be made of a fine chisel-ended knife of black flint, $3\frac{1}{2}$ inches long, from Barrow No. 94, and a fine flint curved knife, $4\frac{1}{8}$ inches long, $1\frac{3}{8}$ inch broad, and not more than $\frac{1}{8}$ th of an inch in thickness, ground down and polished on both sides, from Barrow No. C. 75. This is one of the finest examples of working in flint in the collection.

- 2 flint knives, burnt, and one unburnt, a bone pin and the hollow bone object already referred to, both burnt, all from a cremated interment in Barrow No. 52.
- 1 jet link, or fastener (fig. 1), found with the last object.

Animal Bones.

A quantity of bones of roebuck, red deer, ox, pig, goat, &c. This group of barrows is remarkable for the extraordinary abundance of animal bones found with the bodies.

The greater part of CASE 21 contains the relics from a group of barrows (**Group 4**) situated on the brow of the Wolds east of *Acklam*. There are 17 mounds in this group, 15 of which have been opened.

Amongst the objects are :—

- | | | |
|-----------------------------------|--|------------------------------|
| | 2 large Cinery urns (on the top shelf). | |
| Objects from Acklam Group. | 5 food vases. One of these is of a remarkable type. It is semi-globular, or bowl-shaped, and has four feet or rests. It was found in Barrow No. 208. A human calculus was found with the body in this grave. | |
| | 1 drinking cup. | |
| | 1 incense cup. | |
| | 1 bronze dagger, with three rivets, from Body No. 4, in Barrow No. 205. | |
| | 4 large jet buttons, found near the legs of the skeleton in Barrow No. C. 32. | |
| | 1 jet ring. | } All from Barrow No. C. 24. |
| | 1 jet button. | |
| | 1 kidney-shaped amber button. | |
| | 1 angular flint knife. | |
| | 1 large flint dagger. | |
| | 1 bone pin. | |
| Animal bones. | The animal remains include portions of antlers of the red deer, part of a goat's skull, &c.
The usual number of objects of flint, &c., of a less definite character. | |

The upper part of CASE 21, and most of CASE 22 is occupied by specimens from the barrows in **Hanging Grimston Wold Group 5**—the *Hanging Grimston Wold* group. This contains 19 barrows, all of which have been opened.

The objects are :—

- | | |
|---|---|
| Relics from Hanging Grimston Wold Barrows. | 3 Cinery urns (one being on the top of Case 18; another of these urns, from Barrow No. 56, is of very large size, being about 17 inches in height.) |
| | 4 food vases. |
| | Portions of 4 circular dishes, or shallow bowls, each of which is about a foot in diameter. These are not common. |
| | 3 drinking cups (one of which, out of Barrow No. 56, is exceptionally well ornamented).
Fragments of other urns. |

- 1 bronze spear head (or small diamond-shaped knife) from a cremated interment in Barrow No. 10.
- 1 small portion of bronze knife blade (from the same barrow.)
- 2 large jet buttons, one from Barrow No. 55, and the other from Barrow No. 57.
- 1 stone hammer head from Barrow No. 90.
- 1 large circular knife, of flint, from Barrow No. 8.
- 1 sickle-shaped flint knife, $4\frac{1}{2}$ inches long, from Barrow No. 9.
- Some barbed arrow heads of flint.
- Some small grains of carbonised wheat, from the walls of an urn from Barrow No. 8.
- 5 boar tusks from Barrow No. 110.
- A large number of bones of roebuck, red deer, pig, &c.

In the lower part of CASE 22 and CASE 23 are the objects from **Group 6**—the *Kirkby Underdale* group. The barrows, 20 in number, are situated to the east of Kirkby Underdale; 18 were opened by Mr. Mortimer, and the other two by Canon Greenwell (*See* "British Barrows," 1877, pp. 135-136).

Objects:—

- 2 Cinery urns.
- Objects from Kirkby Underdale Group.** 12 food vases (one of which, a tall cylindrical vase from Barrow No. 98, is of very unusual type in East Yorkshire).
- 4 drinking cups.
- Remains of other vessels in fragments.
- 1 small bronze rivet (the only bronze object from this group of barrows).
- 2 circular jet buttons
- 1 jet fastener, or "slider" } out of Barrow No. 200.
- 2 jet pendants } from Barrow No. 118.
- 1 jet fastener }
- 2 small jet buttons from Barrow No. 99.
- 1 small jet button from Barrow No. 115.
- 1 large spindle-shaped bead of jet from Barrow No. 4.
- 1 bone fastener of peculiar shape.
- 3 bone pins.
- 1 bone "modelling tool."
- 6 or 7 picks made from deer antlers.
- Bones of various animals.

Tusk of beaver from Barrow No. 98.

1 beautiful flint knife.

1 fine double-edged flint saw, $2\frac{1}{4}$ inches long, from Barrow No. 83.

1 large flint spear and several flakes from Barrow No. 99.

2 fine worked flint knives from Barrow No. 4.

There seems to be an unusual number of jet objects in this Kirby Underdale group of barrows.



FIG. 2.—Bronze Dagger or Knife.
(Barrow 32).

CASE 24 contains the remains from the barrows in **Group 7**, situated near *Bishop Wilton*. There are 18 barrows in this group, 17 of which have been opened.

**Bishop
Wilton
Group.**

Contents :—

- 2 Cinery urns.
- 14 food vases (one of which, from Barrow No. 104, has a single small "bow" handle—a very unusual feature).
- Objects from Bishop Wilton Group.** 2 drinking cups, very beautifully ornamented.
 Portions of an oblong incense cup.
 Portions of urns.
- 1 very fine bronze dagger from Barrow No. 32, with 3 rivets, and the bone butt end of the handle. The dagger has been much used, being very much ground at the edges with frequent sharpening (fig. 2).
- 1 bronze awl or pin from Barrow No. 64.
- Portions of a bronze knife from Barrow No. 63.
- Fine Jet Necklace.** 1 very fine jet necklace, made of over 200 perforated discs or beads, and two long beads in the centre, from Barrow No. C. 69.
- 1 oval or egg-shaped hammer-stone, perforated. } from Barrow
- 1 flint flake. } No. C. 69.
- 1 flint barbed arrow. }
- 1 fine flint knife. } from burial "C." in
- Some boar tusks. } Barrow No. 101.
- Several animal bones.

- CASE 25** contains the relics from the barrows in **Group 8**, which is situated a little to the east of the last group. Group 8 contains 18 barrows, 16 of which have been opened.
- Bishop Wilton East Group.**

Objects :—

- 5 Cinery urns (one of which, from Barrow No. 104, is the largest in the collection. It is about 21 inches high). See fig. 3.
- 5 food vases, and portions of others.
- 1 drinking cup.
- Relics from Bishop Wilton East Group.** 2 incense cups (one of very unusual shape). See figs. 4 and 5.
- Portions of other vases.
- 1 bronze knife from Barrow C. 70.
- 1 small string of jet beads.
- 1 jet button from Barrow No. 13 (fig. 6).
- Photograph of a massive jet necklace, consisting of 623 beads, from Barrow No. 13. The original is in the possession of Sir Tatton Sykes, Bart.

- 2 very fine, and very delicately chipped
diamond-shaped spear heads (figs.
8 and 9).
3 similar, but smaller ones (fig. 7).
1 flaked knife.
1 large bone bodkin.
Several animal bones.
Burnt wood, &c.
- } also from
Barrow 13.

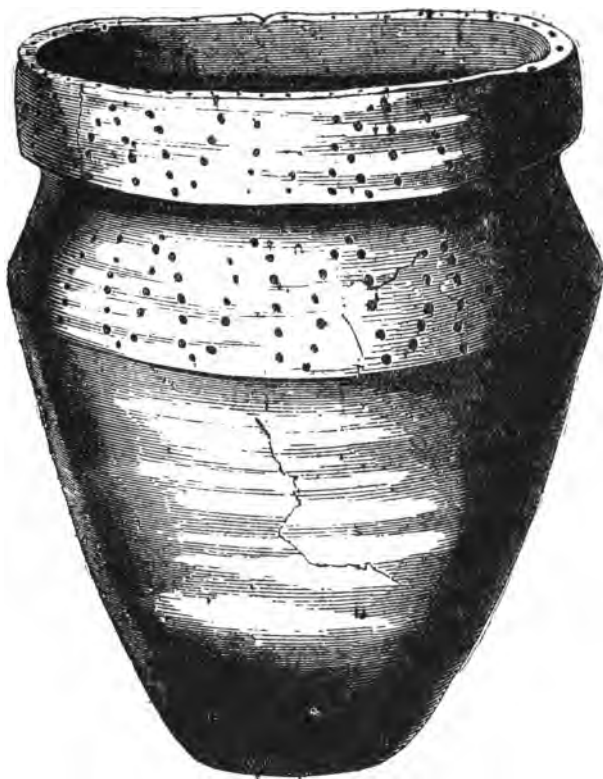


FIG. 3.—Cinery Urn from Calais Wold.

This case also contains some plaster-casts, showing the size and thickness of the stake-holes, from the dwelling of the person whose body was buried in a barrow on its site. Some of the stakes apparently had sharpened points, others were rough and unfinished.

We now reach the west wall of the Gallery. This is occupied by Case No. 9, which is similar to that on the east

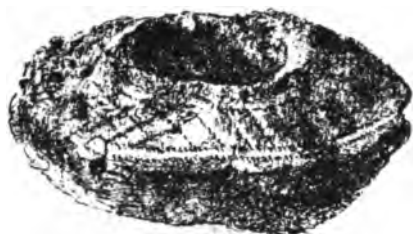


FIG. 4.—Oval Incense Cup, (Barrow 15).



FIG. 5.—Incense Cup (Barrow C. 70)

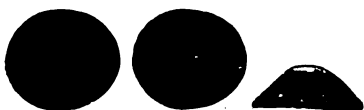


FIG. 6.—Jet Button or Stud.



FIG. 7.—Flint Arrow- or Spear-heads.



FIG. 9.
Spear-head of Flint (natural size).



FIG. 8
Spear-head of Flint.

wall, and is divided into sixteen partitions, which are numbered from 26 to 41. This case is principally occupied

by objects from the barrows, including a large series of skulls and a collection of implements picked from the Wolds.

CASE 26 contains the relics from **Group 9**, which is situated west of *Fridaythorpe*. There are 14 barrows in this group, all of which have been opened.

The objects are :—

3. Cinery urns.

Relics from Fridaythorpe Group. 12 food vases. Two of these, from Barrow No. 33, are of a rude type, and are very thin and plain. One large vase, from Barrow No. 41, is one of the finest of its kind in the collection; it is very elegantly shaped and highly ornamented.

1 very small food vase, or incense cup, which is remarkable in having a covering, or lid. The sides of the cup are pierced vertically for the insertion of a cord, and the knob on the top is pierced horizontally; it is from Barrow No. 17.

Portions of three or four other vases.

1 long jet slider, or fastener, from Barrow 16.

1 bone pin.

Hand-picks made from antlers of the red deer.

1 fine flint knife, from Barrow No. 41.

1 small flint knife, and several other objects of the same material, including some rough angular lumps, probably hand weapons, which are about the most primitive implements met with in the Wold barrows.

From this group are also portions of stakes and wattle-work, remains of the British hut or habitation, at the entrance of which, in this instance, the body was buried. Some of these show axe- and saw-cuts.*

In the centre of CASES 26 and 27 are the objects from two small groups; **Group 10**, and **Group 10½**, known as the *Fimber Group* and *Life Hill Group*, near Sledmere, respectively. The *Fimber Group* contains three barrows, one being the site of the church, all of which have been opened by Mr. Mortimer, and the *Life Hill Group* contains six barrows, four of which have been opened by Mr. Mortimer, and the other two by Sir Tatton Sykes, Bart.

* There is frequently evidence that the burials took place near the entrance or on the site of the huts. In this case there was a circular staining on the chalk subsoil, shewing the size and shape of the hut.

Objects : --

- 2 Cinery urns (in fragments).
- 2 food vases, one from Barrow No. C. 33. and the other from Barrow No. 28. These are well formed and beautifully ornamented (fig. 10).
- 1 object of bronze (fused) of British age.
- 1 small brooch, and another object, of Anglo-Saxon age. These were obtained from a secondary burial.
- 1 bone pin, polished.
- 1 large boar tusk.
- portion of a large shell (*Pecten edulis*).
- 1 small flint celt (unusual in graves).
- other delicate flint objects.

From
Barrow
No.
C. 33.



FIG. 10.—Food Vase (from Fimber).

Nearly all CASE 27 and all CASE 28 are occupied by the objects from the 36 barrows in **Group 11**, the **Garton Slack Group**; all of which have been opened.

Objects :--

- 2 large Cinery urns. (These are placed in a small case over the door in the south wall.)
- Pottery.** fragments of another.
- 2 shallow dish-shaped utensils (in fragments).

- 18 food vases, and fragments of another. One of these food vases, from Barrow No. C. 41, has a single handle. Another fine specimen, from Barrow No. C. 35, has three latitudinal grooves, and when complete had 11 small pierced handles, or knobs, in the middle groove.
- 8 drinking cups (fig. 11).
- 3 small vessels, possibly incense cups.



FIG. 11.—Drinking Cup (from Fimber).

**Bronze
Objects.**

- 1 very fine bronze knife-dagger, with bone pummel, from Barrow No. 107. In the handle of this knife there are over 40 bronze rivets (fig. 12).
- 3 semi-circular objects of bronze, possibly torques, also from Barrow No. 107. Each of these is about a foot in length.
- 2 large ear-rings of bronze, from Burial No. 2, in Barrow No. C. 53.

3 bronze awls, or prickers, from Barrows Nos.
C. 56, C. 52, and 75 (Burial 2) respectively.

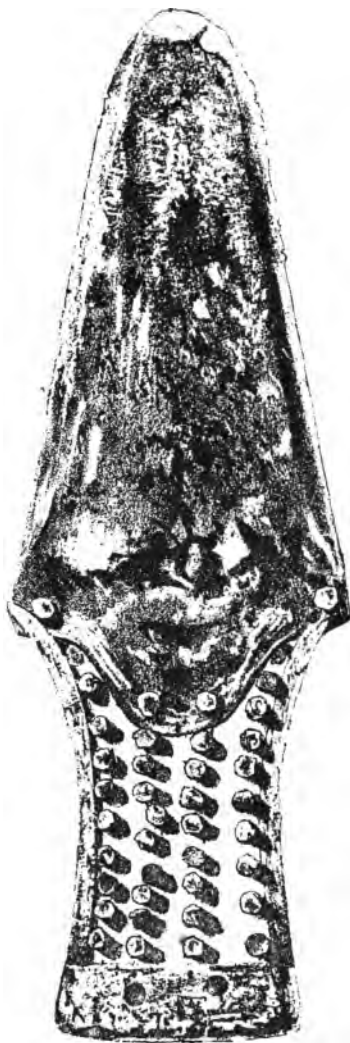


FIG. 12.—Bronze Dagger or Knife (Barrow 107).

1 small awl, with bronze handle attached.
portion of bronze fibula, of later date, found near
the top of the same barrow.

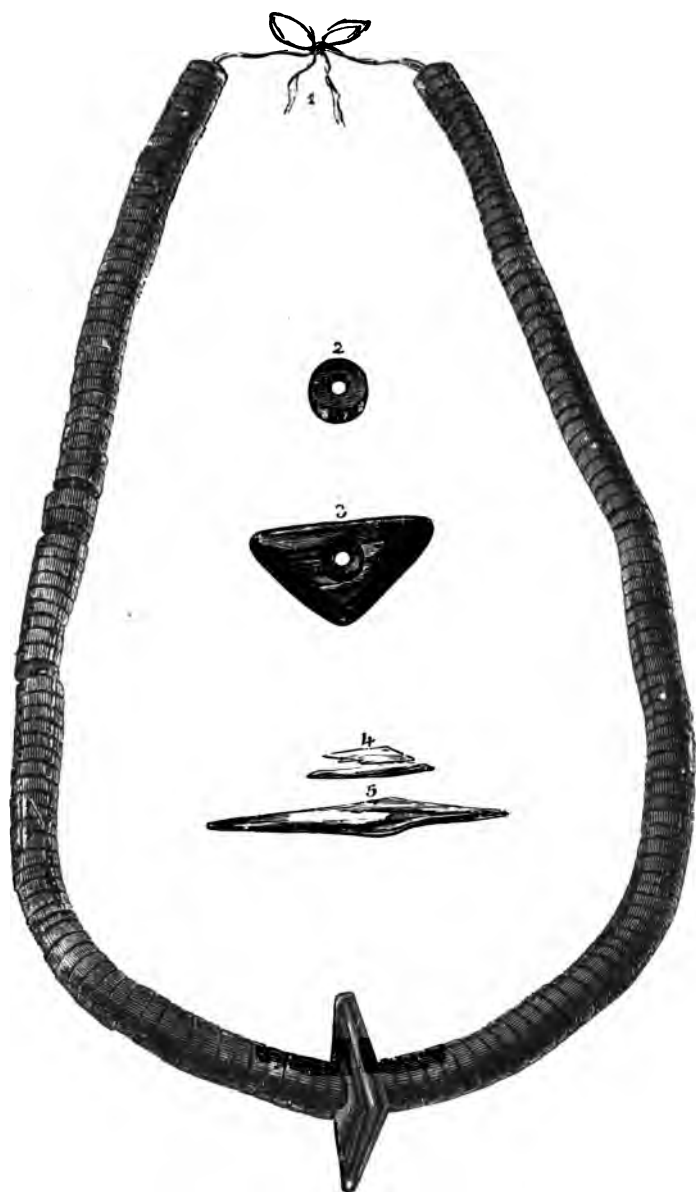


FIG. 18.—Necklace and Ornaments of Jet (Barrow No. 75).

**Jet
Objects.**

3 large jet buttons, from Barrows Nos. C. 52, C. 61,
and C. 37 respectively.

1 necklace, from Barrow 75, made from several
dozens of small perforated discs of jet (fig. 13).



FIG. 14.—Flint Dagger.

1 peculiar ornament of jet, found in Barrow No.
C. 53, together with a portion of an ammonite,
to which it bears some resemblance.

7 bone pins, four of which were found together in
Barrow No. 112.

- 1 large bodkin, $10\frac{1}{2}$ inches in length, } From
made from a human femur. } Barrow
- 2 bone ornaments, or pendants. } No. C. 62.
- 1 object with nine points, made from the antlers of
a red deer, and was originally six inches long.
It was, possibly, used in weaving.
- 2 flint daggers of fine workmanship, one 6 inches
and the other 7 inches in length (fig. 14).
- 1 small flint axe.
- a few flint knives.
- 1 very fine pierced hammer-head of stone, $5\frac{1}{2}$ inches
long, from Barrow No. 37.
some stone "pounders."
bones of red-deer, pig, horse, ox, sheep or goat,
and fox or dog.
- two or three lumps of yellow ochre, apparently
for colouring.
- traces of twisted cord and woven work, found
with Body No. 1 in Barrow No. 82.

In the centre of CASE 29 are the few relics obtained from the *Driffeld* Group (**Group 12**). This contains 9 **Driffeld Group** barrows, 8 of which have been opened.

Objects :—

- 1 Cinery urn (in fragments).
- 1 food vase.
- 1 very fine barbed arrow-head of flint, from Barrow
No. C. 50.

CASE 29 contains the objects from the barrows in **Group 13**, the *Huggate Wold Group*. There are 20 barrows in this group, 18 of which have been opened by Mr. **Huggate Wold Group** Mortimer, and of these several had been previously examined, and some of the contents extracted by Mr. J. Silbourn, who sometimes left a lead slip bearing his name, in place of the burial. The following articles, therefore, represent the objects found by Mr. Mortimer :—

- 2 Cinery urns (one large one being placed on the top
of the case).
- 4 food vases, with portions of others.
- 1 drinking cup.
- 1 globular bead of jet from Barrow No. 216.

- 1 bone spatula from Barrow No. 229.
- several knives, spear-heads, &c., of flint.
- 1 stone "rubber," or "burnisher."
- bones of red deer, boar, sheep or goat, &c., several of which have been burnt.

CASE 30 contains the objects from **Group 14**, situated west of *Huggate*. There are 19 barrows in this group, 18 of which have been opened by Mr. Mortimer. Several of these had previously been opened by J. Silbourn, as indicated by the slips of lead in the case.

Huggate Group.

Objects :—

- 1 Cinery urn.
- 8 food vases and parts of others. One of these, from Barrow No. 264 (body "A") has a handle.
- 1 drinking cup.
- 1 incense cup.
- 2 bronze awls, or borers.
- 2 bone pins.
- 1 spatulate object with a hole drilled through one end; made from a rib.
- 1 barbed arrow head, and other objects of flint.
- 2 peculiar chalk discs, with a hole through the centre of each. One is three inches and the other four inches in diameter. They are from Barrow No. 252.

A few animal bones (sheep or goat, pig, ox, &c.).

CASE 31 contains the objects from **Group 15**, the *Blanche Group*, situated to the east of *Huggate*. This group contains 28 barrows, all of which have been opened by Mr. Mortimer, who observed that several of these had been previously examined by Mr. J. Silbourn.

Blanche Group.

Objects :—

- 2 Cinery urns.
- 9 food vases (one with handle and peculiar square base, from Barrow No. 265).
- 1 incense cup.
- 1 bronze chisel-pointed knife.
- 1 jet button.
- 2 bone pins.
- 1 small stone hammer from Barrow No. C. 89.
- 1 "pounding" stone.
- portion of greenstone pin or awl.
- 1 fine flint knife.

1 barbed arrow-head, and other objects of flint.

Animal bones, including the skull and horn-cores of an ox, from Barrow No. 264. This specimen is interesting, as it exhibits the holes which were in all probability made in the skull when the animal was killed. The other bones are of horse, red deer, boar, and dog or wolf.

There are numerous examples of snail shells (*Helix nemoralis*, &c.) in this and other cases which have been taken from the mounds.

CASE 32 contains various relics from barrows, which require re-arranging. Amongst these are :—

**Various
Barrow
Relics.**

1 food vase, and remains of others. One of these, from Barrow No. C. 99, shows the crushed state in which the vases are sometimes found. fragments of vases from the "Danes' Graves."

1 very large jet button from Kemp Howe.

4 bone pins.

antlers of the red deer, one being particularly fine, from Barrow No. 284; roebuck; a boar tusk, and bones of ox.

CASE 33. This case is chiefly occupied by two large coloured drawings (half natural size) of the contents of two of the so-called "Danes' Graves," by Miss Mortimer. One shows the relative positions of two skeletons, and the remains of a chariot (wheel-tyres, rings, two bridle-bits, &c.). The other shows the relative positions of a human skeleton and the skeletons of two goats and two pigs buried with it; there being one pig and one goat on each side of the burial. For a fuller description of the chariot interment see a paper by Mr. Mortimer on "The Danes' Graves," in the Annual Report of the Yorkshire Philosophical Society for 1897.

**Drawings
of two
"Danes'
Graves"
Burials.**

At the top of the case are five skulls and portions of three vases, all from the "Danes' Graves." In the middle of CASE 34 are photographs of a fine pin and other objects from the "Danes' Graves."

**Skulls,
Vases, &c.**

The upper portions of CASES 31 to 41 are occupied by four rows of skulls, mostly taken from barrows. There are in all 103, and they vary from those of children to those

Skulls from the Barrows. of aged folk. Each skull is placed in a separate glass-fronted box, and carefully labelled. There are 69 skulls belonging to the Stone and Bronze age; these are distinguished by a circular blue label; 21 belonging to the Iron age ("Danes' Graves," &c.), which are marked by a half circle of blue paper; and 13 Romano-British skulls, with circular labels of red paper.

A close examination of these skulls reveals many interesting features, some of which are the results of injuries inflicted during life. Particular attention should be paid to the excellent condition of the teeth in all the skulls.

The lower part of CASES 34 and 35 contains miscellaneous objects which require re-arranging; drawings of the objects from the famous "Duggleby Howe," &c. Particular notice is directed to the whetstone and flint knife in CASE 34. These were found together with an urn on Rookdale Farm.

CASES 36-39, on the lower shelves, contain cards of flint implements from the Wolds; similar to those in the desk cases to be described later; as under:—

Flint Implements 7 cards of barbed arrow heads, about 300 in all.
picked from the Wolds. 6 cards of leaf-shaped arrow heads, about 230 in all.
 1 card of triangular "borers," about 36 in all.
 1 card of miscellaneous flint objects, about 20 in all.
 1 card of spears and knives, about 13 in all.
 1 card of "scrapers," about 32 in all.
 1 card of "flake-knives," about 33 in all.
 1 card of knives, spears, &c., about 44 in all.

In the lower part of CASE 37 are 4 similar cards of flint implements, as under:—

1 card of leaf-shaped arrow heads, about 58 in all.
 1 card of barbed arrow heads, about 50 in all.
 1 card of "scrapers," about 56 in all.
 1 card of miscellaneous implements, about 36 in all.

CASE 35. A very fine stone celt recently obtained from Nafferton.

CASE 37. 9 stone celts, added to the collection latterly.

In the lower shelves of CASES 38 and 39 are 13 boxes containing some thousands of flint implements of various kinds, "scrapers," "flakes," &c., and also a large number of cores from which the flakes have been struck.

On the middle shelves of CASES 39 and 40 is a collection of about 90 flint and stone slingstones, "pounders," "rubbers," &c., and implements of a very primitive type. Some of these latter, Mr. Mortimer thinks, may be equivalent to the palæoliths and eoliths of the south of England.

At the bottom of CASES 40 and 41 is a large box containing many hundred flint "slingstones" and "pounders." Several of these show signs of having been greatly used.

On the lower shelves of CASES 36 and 37 are some injured and malformed bones, which have been taken from barrows. Some of these show distinct breakages, which have healed again. One remarkable case shows a femur which has made a fresh cup (acetabulum) for itself in the hip bone.

CASE 41. About a score of palæoliths from the south of England, and a dozen stone implements from Ireland. These are interesting for comparison with the Wold specimens.

Having examined the wall-cases round the gallery, the small desk cases should be seen. There are 26 of these, and they are labelled A. to Z., commencing at the staircase. These contain the principal portion of Mr. Mortimer's collection of stone and flint axes, spears, arrows, &c., picked up from the Wolds. There are also some "socketed," "winged," and other axes, &c., of bronze, which have been found at different times. These are interesting, as being mostly of different types altogether from the bronze implements found in the barrows, and it is thought they were used by a people of later date than the barrow-builders. The stone celts are vastly more numerous and more varied than those obtained from the barrows. Consequently an examination of both sets of objects is

necessary before a proper knowledge of the implements used by the pre-historic inhabitants of this area is obtained.



FIG. 15.—Stone Hammer Head (from Sledmere).

CASES A. and B., near the staircase, contain about 200 stone axes, or celts, made from various kinds of stone, most of which can be matched in the boulder clay cliffs on the coast. Nearly every example in this case has one sharp edge, and the opposite end is more or less pointed. The axes made from greenstone are usually well polished. Some of the axes have a slight hollow or depression on each side, as though made for the thumb and finger (fig. 17). They are from various parts of the Wolds, but



FIG. 16.—Stone Axe-head.

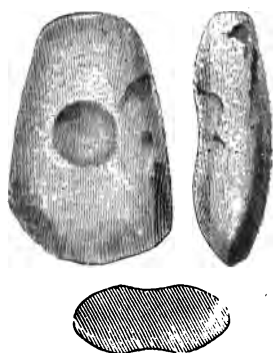


FIG. 17.—Stone Axe.

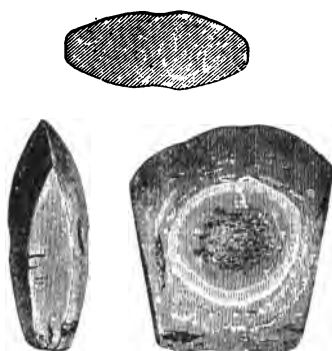


FIG. 19.—Stone Axe.

particular attention should be paid to those from Foxholes, Elmswell Wold, Nafferton Wold, Skipsea, Seamer Carr, Wassand, Carnaby, Brown Moor, and Kilham Huntow. The one from "Coke Farm, Birdsall," is the first one Mr. Mortimer ever saw. It was found by his uncle, Edward Mortimer, who presented it to this collection.

Broken and re-modelled Axes. IN CASE C. is a collection of broken and re-modelled axes. The right-hand half contains between 50 and 60, usually small, most of which have been made from broken fragments of other axes. In the remainder of the case are about 70 portions of axes of various kinds.



FIG. 19.—"Hammer-stone."

Primitive Flint Implements, Sling-stones, Stone Pounders, &c. CASE D. The greater part of this case is occupied by about 60 implements of a very primitive type, which have been made from the local white flint. They are mostly "hand-weapons" and slingstones; some of these are very much worn and rounded. The remainder of the case contains some circular "pounders" of stone, six of which have depressions on each side, apparently for the insertion of the finger and thumb (fig. 19). One of these, obtained from Little Driffeld during the present year, is a very fine specimen.

CASE E. There are about 90 specimens in this case, and amongst them are some of the finest stone implements contained in the museum. In the centre are some very fine "perforated" axes, and seven very large flattened hammers, which are usually rounded at one end and flattened at the other. They are from Helmsley, Lowthorpe, Hornsea, Atwick, Whitby, Sunderlandwick and Meaux. The Meaux specimen has been broken and re-modelled. There

**Stone
Hammers,
Axes, Adzes,
Burnishers,
&c.**

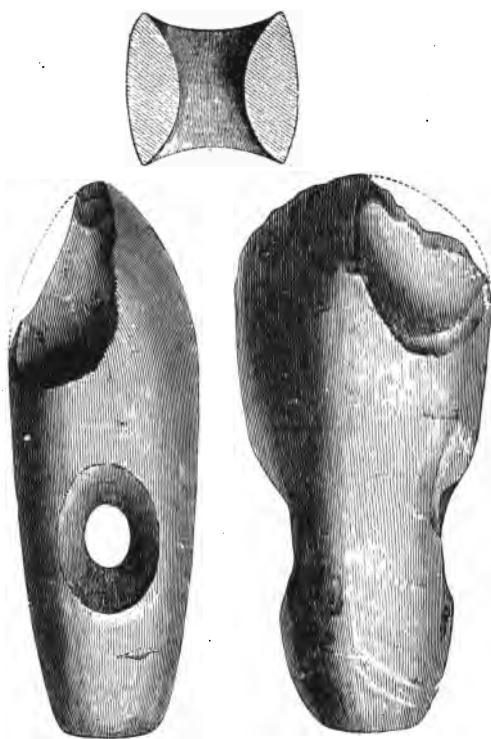


FIG. 20.—Stone "Axe-hammer" (from Bugthorpe).

are two "hammer-axes;" one, found at Cowham in 1883, is very beautifully made; the other, found at Bugthorpe in 1864, is here figured (fig. 20). There are also three perforated adzes, or hoes (fig. 21); eight stone rings, and many broken

axes and adzes. These have been usually broken across in the middle, where the hole was made for the insertion of

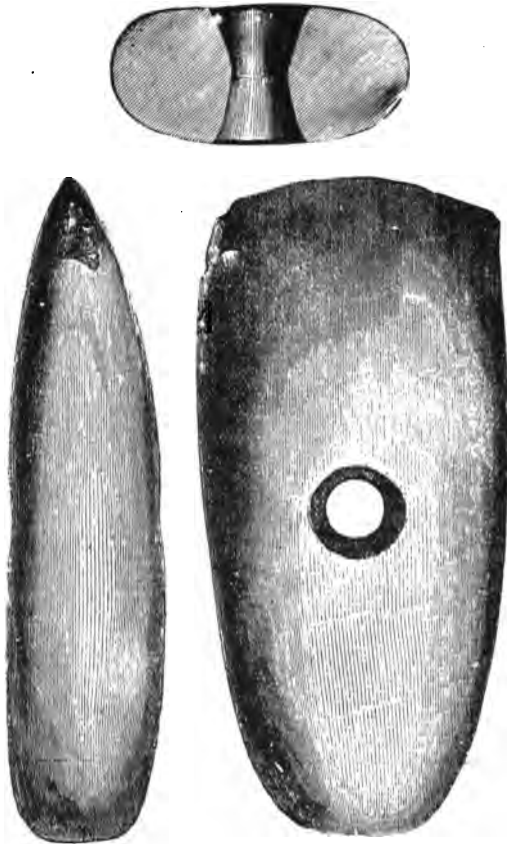


FIG. 21.—Adze, or Hoe, of Stone.

the handle. One specimen (? American) labelled “Fimber” has a groove round it in the middle.

At the left-hand end of this case are some “polishers” of various shapes. Some are shaped like celts.

CASE F. About 115 implements made from the local white flint. Some of these are very coarse and rude, and probably are the oldest met with on the Wolds. Mr.

Rude Flint Implements. Mortimer has labelled some "Probably Palæoliths," and others "Probably Eoliths;" but beyond their primitive shapes there is no evidence of such antiquity. Some are circular like scrapers; some are pointed like knives or spears; some are disc-shaped; whilst others are distinctly axe-shaped. The implements in this case are of rather large size.



FIG. 22.—Punch or "Fabricator," of Flint.

CASE G. A fine series of about 350 punch-like or finger-shaped tools, made from both local and drift flint, though principally from the latter, as the flint occurring

Punch-like Tools. in the drift is much tougher and more easily worked (fig. 22). Many of these implements are quite smooth at one end from constant use. One example is made of greenstone.

CASE H. One half of this case is occupied by a collection of bronze objects. They are principally axes, and vary in form from the flat oval-shaped axe—almost the counterpart of the stone axe—to the highly-finished socketed celt. There are two which closely resemble stone axes in shape, viz., a small one, two inches long, from Riggs Farm, Thixendale, and one, about $3\frac{1}{2}$ or 4 inches long, from Scackleton. There

Bronze Axes,
Sword,
Bracelet, &c.

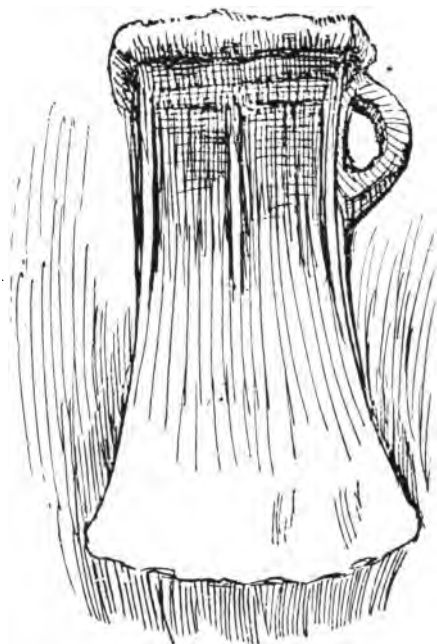


FIG. 28.—Bronze Socketed Axe.

are four other flat bronze axes, varying from three to six inches in length. These are from Goole, Leppington, Raisthorpe, and Wharram Percy respectively. The Leppington and Wharram Percy axes are ornamented all over the surface by small longitudinal gashes, and are both covered with a coat of patina. There are seven **Palstaves**, "paalstabs," or "winged" axes, without loops for securing to the handle. These range from almost flat axes, to one, presented by Dr. Wood, which has very broad

wings. They are from Swinton, Driffeld, Gransmoor, Roseberry, Middleton, and Settrington respectively. Four palstaves with loops, from Watton Carr, Thixendale, Hutton Cranswick, and Driffeld respectively. The Watton Carr specimen is of the "pocketed" type. The loop has been broken from this specimen.

There are 19 socketed axes, more or less perfect; one, however, is a model of a specimen found at Burton Agnes.

The other 18 are:—

Socketed Axes.	7 from Leppington (part of a hoard of imperfect specimens),
	1 from Watton Carr.
4	„ Middleton (part of a hoard).
1	„ Waghen (Wawne).
1	„ Nafferton.
1	„ Swinton.
1	„ South Dalton.
2	„ Driffeld.

These give a total of three dozen bronze axes.



FIG 24.—"Rubber" or "Polisher."

The other bronze objects include a very fine chisel from Lowthorpe, a dagger from Rillington, a nearly-complete two-edged sword (which had been 24 inches long) from Harome, one large spear found at Middleton along with the hoard of axes, a bracelet from Raisthorpe, three portions of small dagger-knives, and two small nuggets of bronze, all from the Wolds.

There is also a jet stud and a square ornamental pendant of the same material, both from the Wolds; and a fragment of a bone armlet, from Aldro.

About one half of Case H. is occupied by a collection of nearly 200 "rubbers," or "burnishers," which usually have one end well smoothed and polished (fig. 24). They vary in size from half an inch to two inches in diameter, and are generally egg- or pear-shaped. With the exception of an occasional example of agate or flint, they are all made from quartzite pebbles. With these rubbers are about a dozen

small nodular masses of oxide of iron (hæmatite) which have been picked up on the Wolds at different times. They have evidently been used for some purpose or other, as indicated by their much-worn and planed faces.



FIG. 25.—Flint Knife (half size).

CASE I. A selected collection of flint daggers, knives, and spear heads is arranged in this case. It includes :—

**Flint
Daggers,
Knives
and
Spears.**

130 knives, with two edges, mostly lanceolate.

15 knives, nearly circular.

1 fine sickle-shaped knife and handle (fig. 25), and remains of four others.

1 well-made dagger with handle, and portions of about 3 others, averaging 5 to 6 inches in length (similar to fig. 14).

1 triangular knife

1 oval knife (fig. 26).

1 half-circular, or "D"-shaped knife.

and about 230 well-made small knives. These are arranged around the back and sides of the case.

CASE J. Above 500 flint spear heads of many sizes and shapes. Some are long and narrow, others broad, and others lanceolate. Several of the specimens

**Flint Spear
Heads.**

are exceedingly well made, and they are mostly of flint from the drift. There are about 300 in the bottom of the Case, and 230 smaller examples arranged around the sides.



FIG. 26.

Oval Knife of Flint (half size).



FIG. 27

Flint Knife or Spear Head.

CASE K. One tray with over 100 flint "flake-knives," made from both local and "drift" flint. A card containing 27 flake-knives—several of which are serrated. A card with 18 flake-knives—all more or less polished.

Flint	5 spear heads.
Scrapers,	1 knife.
Spears,	6 spatulate objects of flint, polished at the broad
Cores, &c.	end by use, and about $1\frac{1}{2}$ to 3 inches long.
	8 similar specimens, not polished.
	2 small whetstones, and portions of two others.

150 flat, disc-shaped, and globular implements—probably slingstones. Five of these are made from broken greenstone axes; the others are all of flint.

40 cores of flint, from which flakes have been struck. These vary in size from three-quarters of an inch to 2 inches in length (fig. 29).

CASE L. Flint Knives and Spears. About 640 knives and spear heads of flint, varying in size from three-quarters of an inch to 2 inches. These are similar in type to the specimens in Case J, but not quite so large.

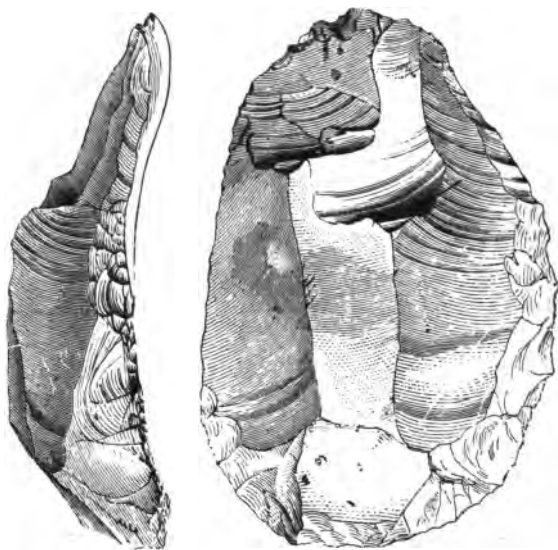


FIG. 28.—Spoon-shaped "Scraper" of Flint.

CASES M and N. These cases are both full of flat circular implements of flint, usually known by the name of "scrapers." They are generally very well made. These scrapers are by far the commonest objects found in the Wold area.

4 cards containing very small scrapers.

1 card containing various sizes, from half an inch to nearly 2 inches across. These five cards contain about 500 small and 36 large scrapers.

- Flint Scrapers.** 6 large boxes or drawers containing thousands of scrapers of various sizes, from half an inch to 2 inches in diameter.
 4 cards containing altogether about 70 elongated or oval scrapers.
 2 cards containing about 100 circular scrapers.



FIG. 29.—Flint Core, from which
Flakes have been struck.



FIG. 30.—"Scraper" of Flint

Barbed Arrow Heads of Flint CASE O. Nearly 900 barbed arrow heads of flint, varying in length from $\frac{1}{2}$ to $1\frac{1}{2}$ inches. Specimens of this description are now rarely found on the Wolds.

Barbed Arrow Heads of Flint CASE P. This case contains about 750 specimens similar to those in Case O. Some, however, are larger than any in the previous set. One card in this case contains some arrow heads of very unusual and curious shapes.



FIG. 31.



FIG. 32.

Barbed Arrow-heads of Flint.

CASE Q. 13 cards containing about 750 flint barbed arrow heads, from a quarter of an inch in length to 2 inches.

**Flint Arrow
Heads; barbed
and leaf-
shaped.**

2 cards containing examples of nearly all the types of flint implements found on the Wolds, viz., scrapers, knives, arrows, "borers," spear heads, &c. There are about 120 specimens in all on these two cards.

1 card containing about 140 lanceolate or leaf-shaped arrow heads.



FIG. 88.

Large Barbed Arrow-head of Flint.



FIG. 84.

Single-barbed Arrow-head of Flint.

CASE R. 16 cards containing in all about 770 "leaf-shaped" arrow heads of flint. Some of these are elongated—others nearly circular.

**Lanceolate
Arrow Heads
of Flint.**

CASE S. About 1100 leaf-shaped arrow heads, nearly all of flint. Amongst this collection, however, are occasional specimens made from agate or carnelian.

**Lanceolate
Arrow Heads
of Flint.**

CASE T. Several small kinds of flint implements, in all about 600 specimens.

Small Flint Implements.	4	cards containing	"borers."
	9	" "	spear heads.
	4	" "	flake-knives and saws.
	1	" "	scrapers.



FIG. 35.
Flint "Borer."

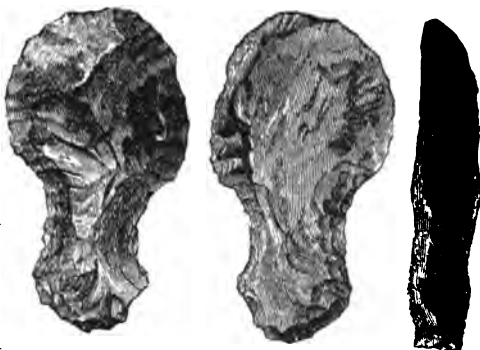


FIG. 36.—Spoon-shaped "Scraper" of Flint.



FIG. 37.—Implement of Flint, of uncertain use.

CASE U. 15 cards of leaf-shaped arrow heads of flint. These specimens are larger than those previously noticed. There are about 900 in all in this case.

Large Leaf-shaped Arrow Heads of Flint

- CASE V.** 13 cards containing about 630 arrow heads of flint; some lanceolate and others lozenge-shaped.
Flint Arrow Heads, Spears, &c. 2 cards of flint spear heads; 66 specimens.
 1 card containing three dozen "flake-knives."
 Altogether there are 732 specimens in this case.

- CASE W.** 18 cards, 14 of flints, which resemble small celts in shape; the other 4 contain peculiar-shaped flint implements with one "wing" (figs. 34 and 37). The precise purpose for which these were used is not known. The case contains about 640 specimens in all.
Triangular and Celt-shaped Flints

- CASE X.** This case contains a collection of forgeries—mostly made by the notorious Flint Jack. These specimens are interesting for purposes of comparison with the genuine antiquities, and illustrate the various stages of perfection attained by Flint Jack and others, who found a ready market for their work. A careful examination of this series, however, shows that in many ways the forgeries fall far short of the excellent work accomplished by the pre-historic inhabitants of the Wolds.
Forgeries, Flint Jack's Work, &c.

The objects include:—

- 2 photographs of Flint Jack, dated 1862 and 1866 respectively (fig. 38).
- Flint Jack's "flaking-tool" (the hasp, from a gate).
 This is much worn at the end with use.
- 10 stone axes.
- over 50 flint and glass arrow heads.
- 3 spear heads of slate.
- 9 castings to imitate bronze celts, spears, &c.
- about 20 curious toothed or serrated flint implements.
- several jet forgeries (buttons, rings, &c.).
- 2 rings of stone.

This case also contains a small tray of old gun-flints of different sizes, which have been picked from the surface of the land along with the British implements.
Gun Flints.

CASE Y. A very fine collection of about 80 flint and stone celts, all from the East Riding. Particularly noteworthy are the two long ones from Arram and Cranswick Carr respectively. There is also a very fine one from Southburn.

Stone Celts.



FIG. 88.—"Flint Jack."

(From a Photograph taken in 1962).

CASE Z. About 140 perfect flint axes, some very beautifully modelled and polished; for example, two from Hutton-le-Hole and Burton Agnes respectively. There is a particularly fine one from Fimber, and another from Garton Field. This case also contains about 50 fragments of flint axes, some of which must have been remarkably fine implements when perfect.

Flint Celts.

GEOLOGICAL SECTION.

The Geological collections occupy the wall cases, &c., on the ground floor. There are specimens from the Lias, Oolites, Speeton Clay, Chalk and Glacial beds of the East of Yorkshire, though the principal part of the collection consists of chalk fossils. This is what might be expected, seeing that Driffield is situated almost in the middle of the Chalk Wolds.

The arrangement of the specimens does not permit an examination of them in proper stratigraphical order. The specimens, therefore, will be noticed in the order they present themselves.

Nearly all the Chalk fossils are carefully labelled as to the precise localities from which they have been found. This labelling usually takes the form of the number of the sheet of the Ordnance Map, and the number of the field in which the quarry occurred from which the fossil was taken. Reference to the large map hung in the Museum at once shews the exact locality from which any particular fossil has been obtained.

One of the panels in the doors leading into the lower portion of the building is occupied by a section, prepared by Messrs. Mortimer, of a well sunk at Fimber, by the parishioners, in 1867, which reached to a depth of 213 feet 3 inches, and passed through about seventy beds of flint. Accompanying this is a photograph of the windlas, well-sinkers, Mr. R. Mortimer, &c., and a reprint from the *Driffield Times*, giving a description of the various beds of chalk and flint passed through.

On the other panel, and at the side of the adjacent window, are eight large photographs of the **Geological** cliffs at Bridlington, Flamboro' and Filey.
Photographs.

At the north end of the building, immediately to the left of the entrance, are two Cases, numbered 1 and 2 respectively.

Red Chalk These contain extensive collections of fossils from the Red Chalk and Grey Chalk, and also many examples of flint nodules, and "tabular" and "banded" flints. The Red Chalk fossils are from Speeton, the north-west edge of the Wolds, and from various dale bottoms inland. Special attention should be paid to
Fossils.

the fine series of fish teeth and vertebræ from Speeton. The other Red Chalk fossils include :—

Ammonites inflatus.
Nautilus, sp. ?
Turrelites „
Belemnites „
Cidaris (several species).
Terebratula sp. ?
Rhynchonella „
Inoceramus „
Pecten „
Lima „
Serpula „

Corals, and some peculiar phosphatic nodules from the lower beds of the Red Chalk.

There are also fossils from the Lower or Grey Chalk in these cases, *e.g.*, *Ammonites*, *Inocerami*, *Pectens*, &c.
Grey Chalk Fossils.

The collection of flints contains many curious forms, and also an extensive and interesting series of casts in flint which illustrated a paper read by Mr. J. R. Mortimer
Flint. “On the Formation of Flint in the Chalk of Yorkshire,” before the Geologists’ Association in 1877. This collection includes many varieties and peculiar forms of flint, which vary in texture from a white chalk-like flint to a dark coloured, tough, semi-transparent flint, but not so black as that from the south of England.

The east wall is occupied by CASE No. 3, 50½ feet in length, 9 feet in height, and has from twelve to fifteen shelves. The whole of this case is occupied by specimens from the local white chalk.
Slickenside-like Structure in Chalk. At the north end of the case, near the Red Chalk fossils, is a large series of pieces and slabs of chalk showing the peculiar striated structure, somewhat resembling slickensides, though on a small scale. There are many forms and variations of this, which Mr. Mortimer has been at great pains to get together. Some of the specimens were originally to illustrate a paper on these curious structures, which was read before the Geological Society of London in 1873. Along with these are some nodular masses of chalk, of various sizes and peculiar

shapes, many of which exhibit the structure just referred to. They form an unrivalled collection for the further study of this peculiar feature. There are also some branching objects of doubtful nature, which much resemble the ramifying objects exposed on the weathered oolitic slabs on Filey Brigg. From the many chalk examples in these cases it would seem that small globular masses of chalk, probably casts of some description, occur in association with these branching structures.

One great drawback to these and other chalk fossils is the large number which require naming. Mr. Mortimer

**Names of
Fossils.**

has from time to time, with the help of friends visiting the collections, named a number of his specimens, but this part of the work is very incomplete. What is required is someone who has made a special study of chalk fossils, to carefully examine the specimens here exhibited, and identify and label them. They would then be of greater use to students than they are at present, and the probability is that some interesting specimens would be brought to light. Mr. Mortimer, however, by carefully collecting the specimens whilst he had the opportunity, and locating the pits, &c., from which they were obtained, has rendered a great service to students of East Riding geology. The naming, arranging, and classifying can, and probably will, be done at some future time.

A large part of the case is occupied by several hundred specimens of fossil sponges and *Ventriculites*, many of which are very beautiful. These were **Ventriculites.** principally obtained from the chalk quarries in and around Driffild, when they were worked to a much greater extent than they are at present. One of the principal and best represented examples is of a circular or mushroom form. The specimens exhibit the fossils from various aspects. Some show the tops, others cross-sections, and others the roots and stems. There are apparently many species of these *Ventriculites*, but they require carefully examining by an expert.

In the same case, towards the middle, is a fine series of silicious sponges from the "sponge bed" in the Upper Chalk. The specimens are from the chalk near

**Fossils from
the "Sponge-
bed."**

Danes' Dyke (north of Bridlington), the railway cutting near Flambro' Station, and other places. Some of these fossils have been well cleared from the matrix, and exhibit the elegant forms of the sponges. The principal of these have been named, but there are still

many which require examining. Amongst those labelled are :—

Spongia plana.

Spongia terebrata.

Spongia radiciformis.

Cephalites subrotundus (Mantell & Morris)—*C. constrictus* (Smith).

Near the middle of the case is a large collection of **Sharks' Teeth and Fish Remains.** palate teeth and cutting teeth, vertebræ, and scales of fishes from the chalk. The largest of these, a palate tooth of *Ptychodus rugosus*, measures two and a half inches by one and a half inches. The species represented are :—

Ptychodus mammilaris.

Ptychodus latissimus.

Ptychodus rugosus.

Ptychodus pacisuleatus.

Lamna acuminata.

Lamna raphiodon.

Corax falcatus.

Notidanus miordon.

There are also several fish coprolites.

Adjacent to these fish teeth are a few remains of **Remains of Crustaceans.** Crustaceans from the chalk, including a small but fine carapace. These are particularly interesting, as fossils of this kind are very rarely met with in the Yorkshire chalk.

A large collection of *Belemnites*, labelled as to localities, but not named. There are several examples of *B. quadrata* and other species represented. The collection, **Belemnites.** however, requires carefully examining. One very large and flat *Belemnite* is interesting, as it appears to be a deformed specimen.

Miscellaneous Fossils. *Miscellaneous fossils.* Amongst these are some ferruginous hair-like markings in the chalk, which are thought to be remains of "glass-sponges"; an extensive collection of small fossils, on glass or card-board slips. These include some ossicles of Starfishes; small globular bead-like sponges (*Millepora globularis*) Phill; Annelids, &c. Amongst the labelled specimens are the following :—

- Chalk** *Orbitolina Tinoporus concava.*
Bivalves *Scapellum maximum.*
Crania Ignabergensis.
Terebratula semiglobosa.
Terebratula biplicata.
Terebratula gracilis.
Rhynchonella sp. ?
Inoceramus sp. ?
Lima sp. ?
Ostrea sp. ?

Towards the south end of this case are two boxes containing some univalves and remains of other fossils which are rarely met with in the Yorkshire chalk.

Chalk These were taken from an accumulation of
Univalves. broken shells, &c., underneath a large ammonite in a quarry at Wharram. These fossils have been protected from the action of percolating water by the ammonite, and are well worth a careful examination.

On the top of CASE 3 are two masses of flint, known by the name of Paramoudra or "Pot-stones."

In the small case at the end, next to the door of the workshop, are some ammonites and other liassic fossils from Whitby.

This case also contains an apparatus, connected with a well under the building, which records the depth of the water-line in the chalk. This is not
Waterline in found to vary much in this part of Driffild,
the Chalk. whilst on the mid-wolds it has been known to vary as much as 100 feet.

Above the door adjacent, which enters the workshop, is a small case containing four very fine chalk *Ammonites*, and portions of two others. With the excep-

Ammonites tion of the doorway, all the south wall is
from the occupied by CASE No. 4, devoted exclusively
Chalk. to the exhibition of chalk fossils. The top half of the case is occupied by *Ammonites* and allied genera; (*Nautili*, *Scaphites*, *Hamites*, &c.). The two centre fossils are very fine *Ammonites* from Wharram Percy. One is 3 feet $4\frac{1}{2}$ inches in diameter, and the other 3 feet $4\frac{1}{4}$ inches. Both these were originally much larger. Mr. Mortimer has temporarily labelled these "*Ammonites Wharramiensis*," though they have never been described as such, and are probably known by some other name. There is also a very

fine specimen from the railway cutting at Flambro' Station, and two large ones on the top of the case. In all there are about 100 specimens, eight of which vary in size from 18 inches to over 3 feet in diameter.

The lower half of Case 4 is occupied almost entirely by some hundreds of *Inocerami* of various species. Some of

Inocerami. these are remarkable for their large size and excellent state of preservation. There is a particularly fine series of the kind labelled *Inoceramus involutus*. Amongst the specimens labelled are:—

Inoceramus latus.

Inoceramus Cuvieri.

Inoceramus Brogniarti.

Inoceramus striatus.

Inoceramus involutus.

CASE 5. This case occupies the western wall, and is occupied by local Chalk, Speeton clay, and Oolitic fossils. At the south end of the case is a continuation of the collection of chalk fossils. The upper shelves contain many fine examples of

Inoceramus mytiloides,

Inoceramus undulatus,

and others, some of which are as much as 20 inches in length and 12 in width.

The lower part of this section of Case 5 is occupied by some hundreds of specimens of chalk echinoderms of many

Chalk species. These, like the rest of the chalk
Echinoderms. fossils, are carefully labelled as to the localities from which they have been obtained. Several of these have been identified by Mr. Mortimer, and amongst them we find the following:—

Ananchytes ovatus (many varieties).

Ananchytes pillula.

Holaster planus.

Galerites subglobosus.

Cardiaster excentricus.

Micraster corbovis?

Micraster cortestudinarium.

Marsupites ornatus (several fine examples from Beverley).

There are also small specimens of *Cidaris* and many fine spines and plates of this species. Amongst the rest of the

fossils are some small and well preserved *Inocerami*, large *Pleurotomaria* (in the bottom of the case); *Lima*, and other bivalve-fossils; and several well preserved operculæ of ammonites.

Next to the chalk fossils is a small but fairly representative collection of specimens from the Speeton Clay. It includes *Ammonites* (several species), a large *Nautilus*, *Belemnites* (several species, including some fine examples of the large *B. ultimus*), *Ostrea*, *Vermicularia Sowerbyi*, and some bivalves, Crustaceans (*Meyeria ornata*), &c.

The remainder of the case on the west wall (*i.e.*, about one half) is occupied by an extensive collection of fossils from the various Oolitic beds, most of which are well exposed in the vicinity of Malton and Settrington. These fossils are from the Calcareous Grit, Coral Oolites, Coral Rag, Kellaways Rock, and Kimmeridge Clay, and amongst them are some very choice examples of *Ammonites caudatus*, *A. Williamsoni*, *Belemnites*, *Terebratulæ*, *Rhynchonellæ*, *Ostrea*, *Gryphæa*, *Lima*, *Turbo*, *Cerithium*, *Phasianella*, &c.

Some small boxes contain loose granules from local oolitic and pisolitic rocks, as well as rock specimens showing the various sizes of the oolitic grains. Many beautiful examples of crystals of carbonate of lime (Calcite) are shewn.

The Coral Rag, with its excellently preserved fossils, is naturally well represented in these collections, and amongst the fossils therefrom are some well-preserved Echinoderms, Corals, Saurian teeth, palate and other teeth of fishes, and a few sponges. On the top of the case are two large Ammonites, and some septarian nodules.

The north wall is occupied by CASE No. 6, which contains a miscellaneous geological collection of local interest, but is principally occupied by mammalian bones, teeth, and horns, from the Glacial and Post-Glacial beds of the East Riding.

In this case are various examples of chalk and flint breccias, from St. Austin's Stone (Drewton Dale); the Fairy Stones (Burdale); and other parts of the Wolds. Occasionally quartzite and other pebbles are found in these breccias, and a few of these are exhibited.

A small collection of teeth, bones (vertebræ), crustaceans, coprolites, shells, &c., from the Norwich and Essex Crag, for comparison with somewhat similar specimens from the Holderness gravel hills. Ammonites, shells, and other fossils from the Cambridge Greensand (Coprolite beds).

Some brecciated material consisting mostly of cockle shells, and also several curious siliceous concretions, from the "forest-bed" exposed at the bottom of one of the docks in East Hull about 1865.

Some boxes of shells from the glacial gravels of Kelsey Hill, in Central Holderness. These are mostly marine shells, (*Astarte*, sp., *Macra solida*, var. *ovalis*; *Mytilus edulis*, *Ostrea edulis*, *Tellina balthica*, *Buccinum undatum*, *Littorina littorea*, *Nassa reticulata*, *Natica*, sp., *Dentalium entalis*; and *Balanus*, sp.), but the stout fresh-water species *Cyrena fluminalis*, found in association with the marine shells, is represented in fair numbers.* They were collected in the early eighties, whilst the gravel pits were being dug.

The mammalian remains from Kelsey Hill include those of:—

Mammoth (*Elephas primigenius*), teeth and limb bones.

Mammalian Remains. Rhinoceros (*Rhinoceros leptorhinus*), lower jaw and teeth.

Ox or Bison, limb-bones, &c.

Red Deer (*Cervus elaphus*), antlers and bones.

Horse (*Equus caballus*), bones and teeth.

The other mammalian remains include a large portion of a tusk of a mammoth from Skipsea, and another from Hessle. Bones of Horse from the gravels at Hessle. Horn-cores, bones, &c., of Ox and *Bos primigenius* from the cuttings in the clay and gravel at and near Driffeld.

A few bones, and some of the stakes from the Lake Dwellings at Ulrome. Above the case is a very fine pair of horn cores of *Urus*, found at Brigham, and over the door is part of a skull and a complete pair of very large antlers of the Red Deer, from the "new cut" at Rotsea.

* See Clement Reid's "Geology of Holderness," 1884, pages 63-71; and Thomas Sheppard "On another section in the so-called Inter-glacial gravels of Holderness." Proc. Yorks. Geol. and Polyt. Soc., 1895, pages 1-14.

Above CASE 6 are four enlarged photographs of "The Founders" of the museum. These are Mr. J. R. Mortimer, the late Mr. R. Mortimer, Sir Christopher Sykes, and Miss Mary E. Sykes.

On the ground floor are six table cases, three along the east side, and three along the west. The latter are numbered IIA, IIB, and IIC, those along the east being numbered I2A, I2B, and I2C. Only a portion of these cases is occupied by local objects, the remainder being utilised for the exhibition of fossils, &c., from other parts, which are useful for comparison with those from the Driffield district.

CASE IIA. The lower part of this case is occupied by local oolitic, &c., fossils, which require arranging amongst the other specimens in the museum.

The upper part of the case contains the following fossils from the white and grey chalk of the south of England:—

Palate and other teeth, bones, &c. of fishes.

Ammonites.

Fossils from *Nautilus.*

the South of *Pecten.*

England. *Ostrea.*

Rhynchonella.

Terebratula.

Serpula.

Sponges, &c.

Also some fossils from the Red Chalk of Norfolk.

A collection of rocks and minerals, including Quartz, Obsidian, Selenite, Stalactite, Calcite crystals, Carboniferous Limestone, Magnesian Limestone, Copper Ore, Jet, &c.

On the top of CASE IIB is a further series of rocks and minerals, including specimens of Agate (polished), Quartz, Marbles and Limestones (polished), fossil Corals (polished), Selenite, Galena, Pyrites, Calcite (crystals), Iceland spar, Copper Ore, Hæmatite, Conglomerate, and Phosphatic nodules. The lower part is occupied by an extensive collection of mammalian remains (mostly small and broken bones) from the pre-glacial beach

at Sewerby, near Bridlington,* and a collection of foreign pebbles, &c., from the "Basement" Boulder Clay of Bridlington, presented by Mr. G. W. Lamplugh, F.G.S.

The lower part of CASE 11C contains a series of pebbles and far-travelled rocks, obtained during the excavation of the streets at Driffield for drainage purposes; and several boulders picked up in the vicinity during the progress of the geological survey, and presented to the museum by Mr. J. R. Dakyns, F.G.S.† Some of these are "ice-scratched," and amongst them Rhomb-porphry, Augite syenite, and other Scandinavian rocks can be identified. The upper part of the case contains various beautiful exotic shells, and a collection of marine-shells from Flambro', Filey, and other places on the east coast of Yorkshire, and some fresh-water mollusca from the pools and drains near Driffield.

In the bottom of CASE 12A are some Oolite, Chalk, and other fossils which require arranging. On the top of the case is a collection of flints, and flint-casts of fossils, from the south of England, presented by the late Judge Bedwell. Amongst the fossils are sponges, shells, echinoderms, &c. The very black colour of most of this southern flint contrasts with the light-coloured flints of the Yorkshire Chalk.

The lower part of CASE 12B is occupied by various forms of stalagmite, stalactite, and concretions of Calcium carbonate (lime), some of which are natural and others artificial; also some minerals from various sources. On the top of the case are many fine examples of corals, coral sand, &c., from Smyrna, Fiji, and other localities; some of these are of exceptional beauty. The case also contains examples of the "glass-sponge," tusks of rhinoceros, various foreign nuts, savage weapons, &c.

* "Report on the Buried Cliff at Sewerby, near Bridlington," by G. W. Lamplugh, in Proc. Yorks. Geol. and Polyt. Soc., 1887, pages 381-392.

† See "On the Sections of the Drift obtained by the new drainage works at Driffield," Proc. Yorks. Geol. and Polyt. Soc., 1881, pages 373-380; and Thomas Sheppard "On the Occurrence of Scandinavian Boulders in England." "Glacialists' Magazine," Dec. 1895, pages 129-131, with lists.

CASE 12C contains a collection of local and exotic butterflies, moths, beetles, &c., formerly in the possession of the late Mr. S. P. Dawson, of Driffeld, and presented by his relatives in 1890. Also a drawing and description of "Flint Jack," from the "Peoples' Magazine," and one or two objects of a miscellaneous nature.

In the north-west corner of the room is a large plan (on rollers) of the Driffeld Drainage Sections, and hanging from the top of the building is a map (also on rollers) of the whole of Holderness on the 6-inch scale, with all the drift mounds and other physical features indicated by colours.

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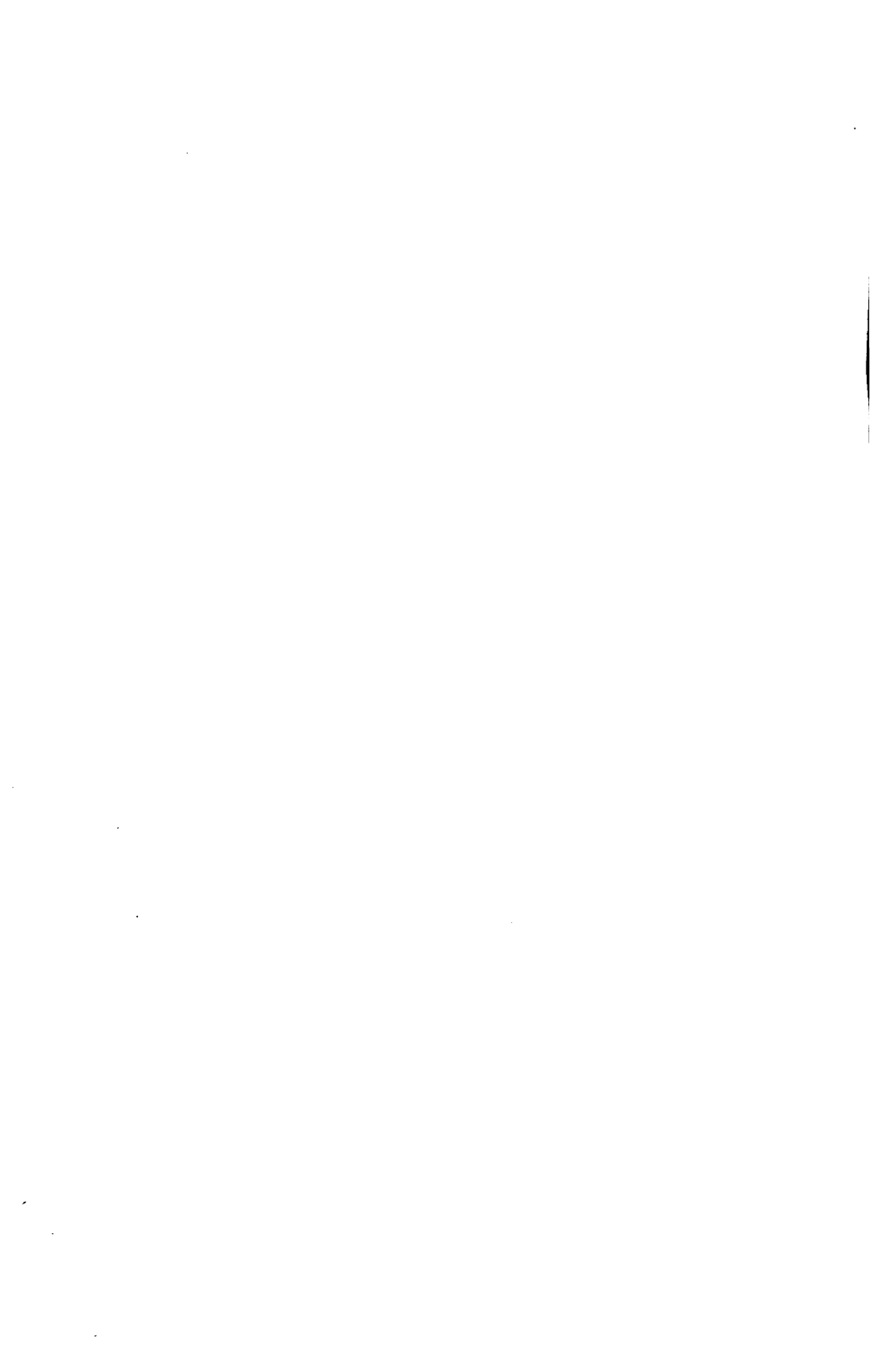
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